ORDER NO. VRD9010M164

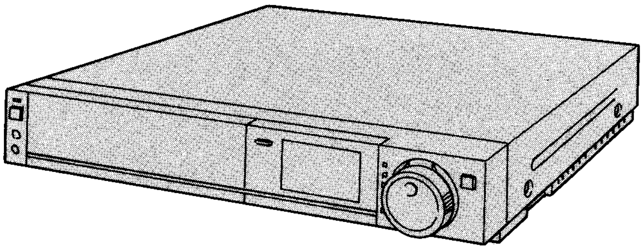
Service Manual

Video Cassette Recorder

Panasonic S-VHS VHS PAL 625

Hi-Fi HQ

NV-FS90EG



- SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ
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  - Hi-Fi audio block diagram\блок-схема Hi-Fi аудиоусилителя
  - TV demodulator and decoder block diagram\блок-схема телевизионного демодулятора и декодера
  - Power block diagram\блок-схема электропитания
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  - System control schematic diagram\принципиальная схема системы управления
  - Servo schematic diagram\принципиальная схема сервопривода
  - Servo pack schematic diagram\принципиальная схема сервопривода (дополнительная)
  - Luminance/chrominance schematic diagram \принципиальная схема каналов яркости/цветности
  - Luminance and chrominance pack schematic diagram\принципиальная схема каналов яркости/цветности (дополнительная)
  - HQ pack schematic diagram\принципиальная схема подмодуля HQ
  - Sub luminance/chrominance schematic diagram \принципиальная схема каналов яркости/цветности (дополнительная)
  - Input/output pack schematic diagram\принципиальная схема платы ввода/вывода (дополнительная)
  - Head AMP schematic diagram\принципиальная схема усилителя видеоголовок
  - Audio schematic diagram\принципиальная схема аудиоусилителя
  - HI-FI audio pack schematic diagram\принципиальная схема HI-FI аудиоусилителя
  - Timer and VR schematic diagram\принципиальная схема таймера и платы управления
  - TV demodulator pack schematic diagram\принципиальная схема телевизионного демодулятора (дополнительная)
  - Decoder pack schematic diagram\принципиальная схема декодера (дополнительная)
  - VPS pack schematic diagram\принципиальная схема подмодуля ВПС
  - RF converter schematic diagram (ENC17974)\принципиальная схема высокочастотного преобразователя (ENC17974)
  - Digital scaner schematic diagram\принципиальная схема цифрового сканера
  - Remote controller schematic diagram\принципиальная схема пульта дистанционного управления
  - Interconnection schematic diagram\принципиальная схема соединений
  - ICs and TRs information\цоколевка выводов микросхем и транзисторов
- EXPLODED VIEWS AND PARTS LIST\СБОРОЧНЫЕ ЧЕРТЕЖИ И СПИСОК ЗАПАСНЫХ ЧАСТЕЙ
  - EXPLODED VIEWS\СБОРОЧНЫЕ ЧЕРТЕЖИ
    - Chassis parts section (1)\секция шасси (1)
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    - Cassette up mechanism section\секция механизма кассетоприемника
    - Casing parts section\секция корпуса
    - Packing parts section\секция упаковки
    - Remoute controller unit\пульт дистанционного управления
    - Digital scaner unit\цифровой сканер
  - MECHANICAL REPLACEMENT PARTS LIST\СПИСОК МЕХАНИЧЕСКИХ ЗАПАСНЫХ ЧАСТЕЙ
  - ELECTRICAL REPLACEMENT PARTS LIST\СПИСОК ЭЛЕКТРИЧЕСКИХ ЗАПАСНЫХ ЧАСТЕЙ

Panasonic

SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 220V 50/60Hz	
	CONSUMPTION: 35 watts	
RECORDING SYSTEM	2 rotary heads, helical scanning system	
	PAL	
TV TUNER SYSTEM	Germany	VHF I: CHE2~CHE4 VHF III: CHS4~CHE12 VHF H: CHS11~CHS20 (PAL/SECAM B) 75Ω unbalanced UHF: CH21~CH69 (PAL/SECAM G) 75Ω unbalanced
	Italy	VHF I: CHA~CHH VHF III: CHS4~CHH2 VHF H: CHS11~CHS41 (PAL/SECAM B) 75Ω unbalanced UHF: CH21~CH69 (PAL/SECAM G) 75Ω unbalanced
	Other Countries	VHF I: CHE2~CHS3 VHF III: CHM1~CHE12 VHF H: CHU1~CHS41 (PAL/SECAM B) 75Ω unbalanced UHF: CH21~CH69 (PAL/SECAM G) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL/SECAM G) 73^{+2}_{-3}dBμ, 75Ω terminated	
VIDEO	HEADS:	4 rotary heads 1 pair for SP recording, playback and trick play (L-R heads) 1 pair for LP recording, playback and trick play (L′-R′ heads), 1 flying erase head
	INPUT:	VIDEO IN (AV2) Connector (Phono type) 1.0Vp-p, 75Ω terminated EURO AV (AV1) Connector (21 pin) 1.0Vp-p, 75Ω terminated S-VIDEO IN Connector (4P) Y: 1.0Vp-p, 75Ω unbalanced C: 0.3Vp-p, 75Ω unbalanced
	OUTPUT:	VIDEO OUT Connector (Phono type) 1.0Vp-p, 75Ω terminated EURO AV (AV 1) Connector (21 pin) 1.0Vp-p, 75Ω terminated S-VIDEO OUT Connector (4P) Y: 1.0Vp-p, 75Ω unbalanced C: 0.3Vp-p, 75Ω unbalanced
AUDIO	HEAD:	1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)
	INPUT:	AUDIO IN (AV 2) Connector (Phono type) More than −10dBV (316mV), more than 50kΩ EURO AV (AV 1) Connector (21 pin) More than −10dBV (316mV), more than 10kΩ MICROPHONE JACK −70dBV
	OUTPUT:	AUDIO OUT Connector (Phono type) −8dBV (400mV), Less than 1kΩ EURO AV (AV 1) Connector (21 pin) −6dBV (500mV), Less than 1kΩ HEAD PHONE Jack −30dBV, 8Ω
	TRACK:	1 track (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
TAPE FORMAT	S-VHS, VHS Cassette tape (Tape width 12.7mm)	
TAPE SPEED	SP: 23.39mm/s LP: 11.695mm/s Record/Playback Time: SP: 4 hours with 240min. type tape LP: 8 hours with 240min. type tape FF/REW Time 2.5min. with 180min. type tape	
DIMENSIONS	430(W)×100(H)×383(D)mm	
WEIGHT	6.3kg	
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red Remote Contoroller 2 pc. Audio Cables 1 pc. Digital Scanner 1 pc. Programme Sheet 1 pc. AC Mains Lead 1 pc. 4P Cable	

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

1-4. SERVICING THE LUMINANCE & CHROMINANCE PACK C.B.A., HQ PACK C.B.A. & SERVO PACK C.B.A.

When servicing the LUMINANCE & CHROMINANCE PACK C.B.A., HQ PACK C.B.A. and SERVO PACK C.B.A., connections of Extension Cables are necessary as shown below.

PART NO.	PART NAME	PCS	CONNECTION
VFK0582	8P EXTENSION CABLE	1	PK3021–PK3021
VFK0583	9P EXTENSION CABLE	1	PK2204–PK2204
VFK0584	11P EXTENSION CABLE	2	PK2203–PK2203,PK3013–PK3013
VFK0585	12P EXTENSION CABLE	2	PK3011–PK3011,PK3012–PK3012
VFK0586	15P EXTENSION CABLE	3	PK2201–PK2201,PK2202–PK2202,PK3022–PK3022

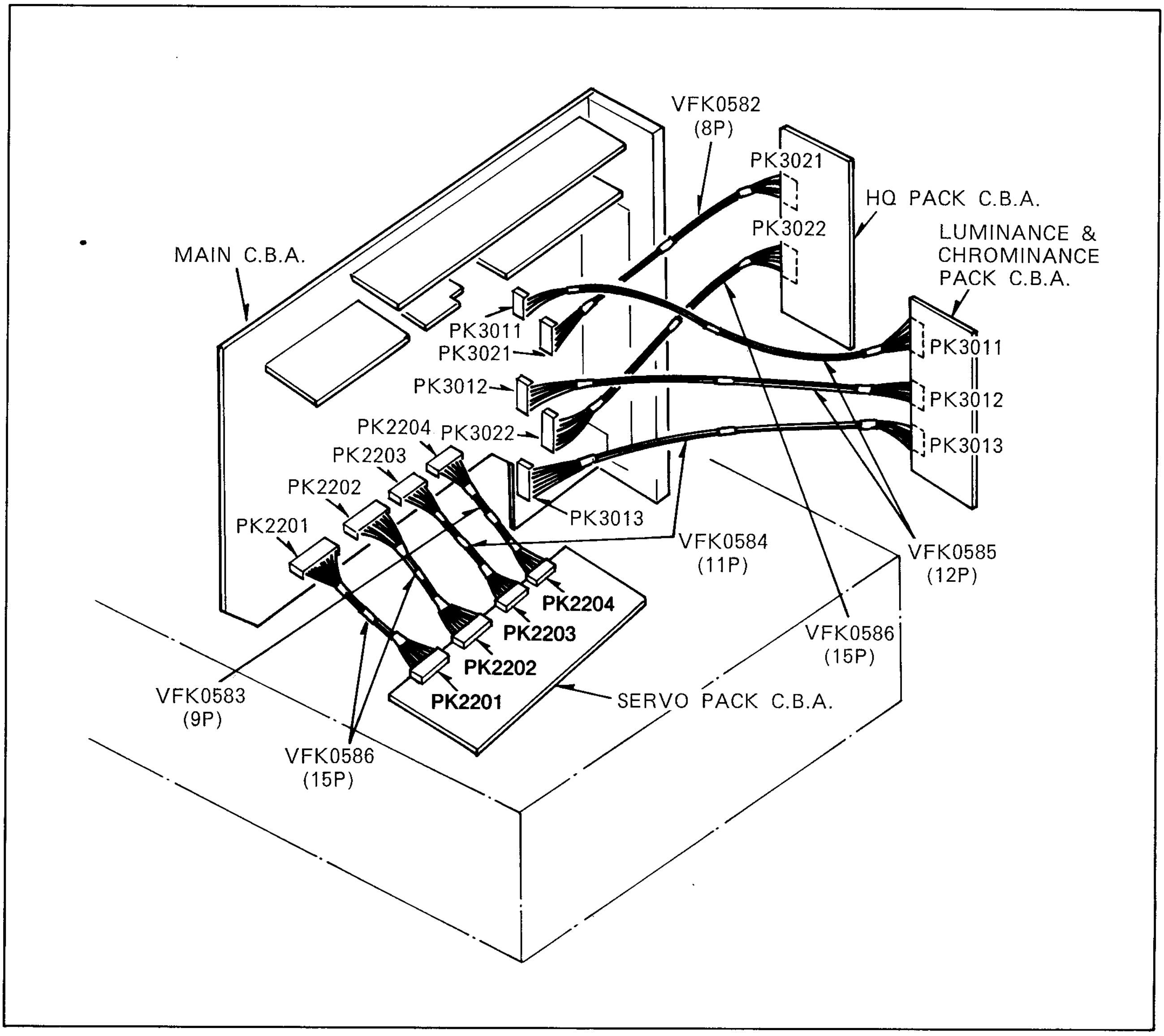

VFK0582
(8P)
PK3021
HQ PACK C.B.A.
PK3022
LUMINANCE &
CHROMINANCE
PACK C.B.A.
MAIN C.B.A.
PK3011
PK3021
PK3011
PK3012
PK3012
PK2204
PK3022
PK3013
PK2203
PK2202
PK3013
PK2201
VFK0584
(11P)
VFK0585
(12P)
PK2204
PK2203
VFK0586
(15P)
PK2202
VFK0583
(9P)
PK2201
SERVO PACK C.B.A.
VFK0586
(15P)

Fig. G13

SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY METHOD

2–1–1.DISASSEMBLY FLOWCHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

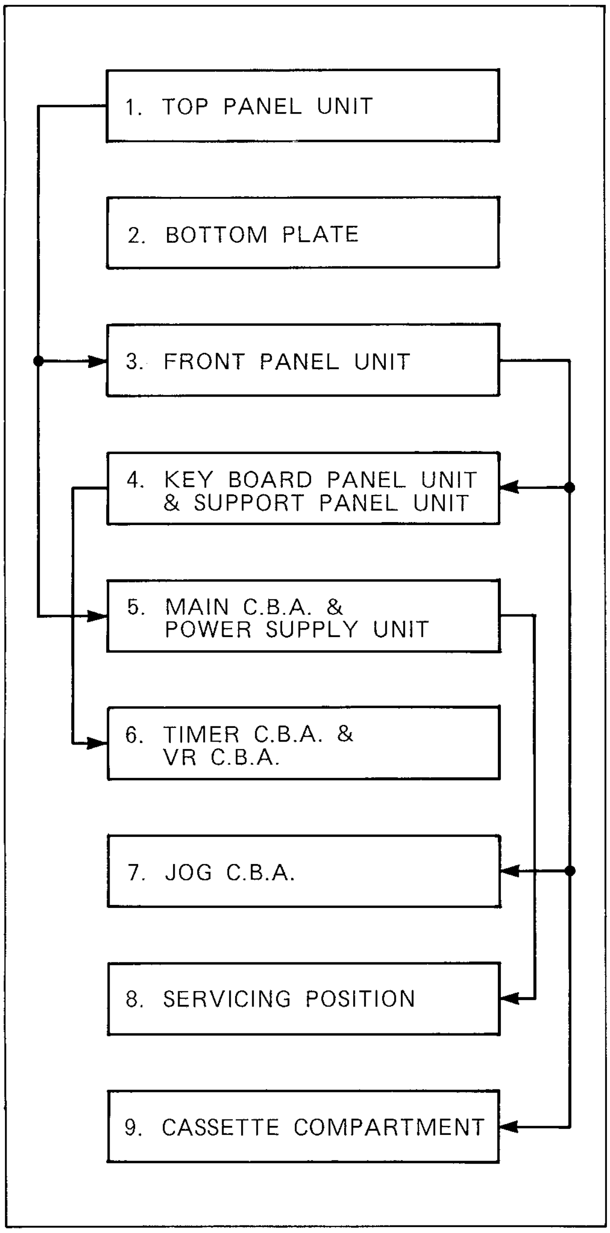

1. TOP PANEL UNIT
2. BOTTOM PLATE
3. FRONT PANEL UNIT
4. KEY BOARD PANEL UNIT & SUPPORT PANEL UNIT
5. MAIN C.B.A. & POWER SUPPLY UNIT
6. TIMER C.B.A. & VR C.B.A.
7. JOG C.B.A.
8. SERVICING POSITION
9. CASSETTE COMPARTMENT

Fig. D1

2–1–2.DETAIL OF DISASSEMBLE METHOD

1.REMOVAL OF THE TOP PANEL UNIT

* Remove.....4 Screws(A)

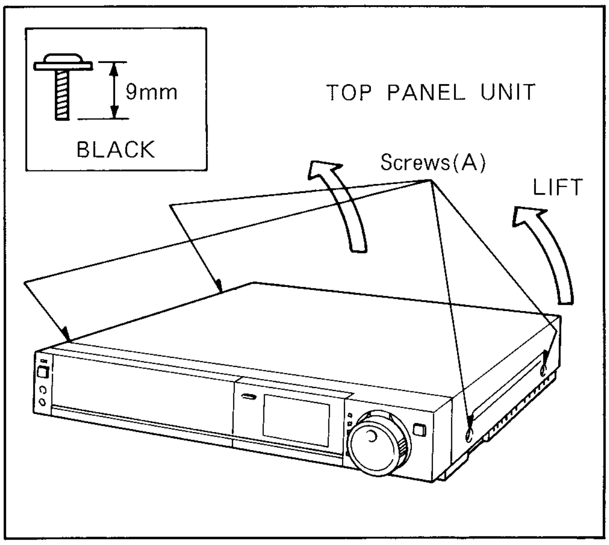

9mm
BLACK
TOP PANEL UNIT
Screws(A)
LIFT

Fig. D2

2.REMOVAL OF THE BOTTOM PLATE

* Remove.....6 Screws(B)

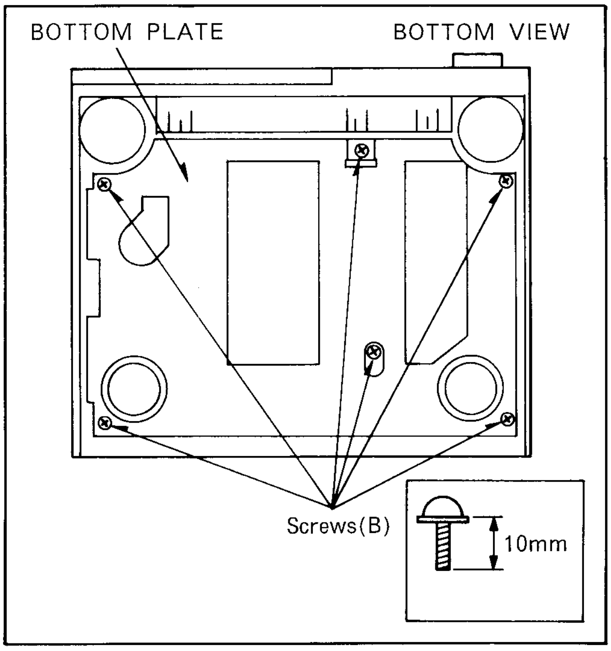

BOTTOM PLATE
BOTTOM VIEW
Screws(B)
10mm

Fig. D3

3.REMOVAL OF THE FRONT PANEL UNIT

* Remove.....Screw(C)
Unlock.....7 Tabs(D)
Disconnect.....Connector(E)

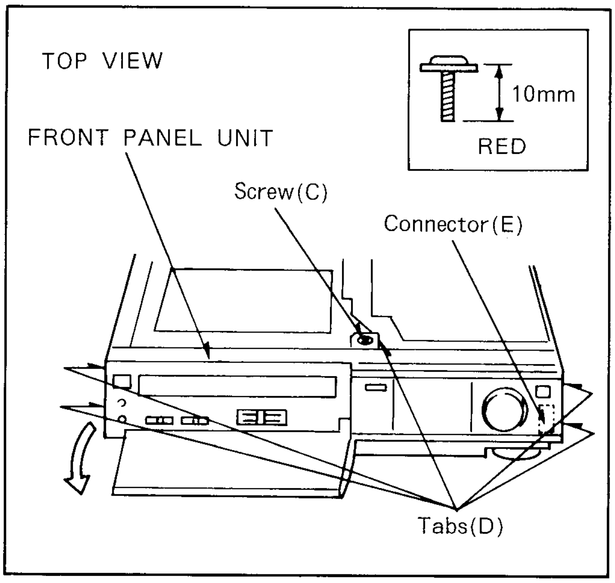

TOP VIEW
10mm
RED
FRONT PANEL UNIT
Screw(C)
Connector(E)
Tabs(D)

Fig. D4

4. REMOVAL OF THE KEY BOARD PANEL UNIT AND SUPPORT PANEL UNIT

* Remove.....3 Screws(F)
Disconnect.....2 Connectors(G)
Unlock.....3 Tabs(H)

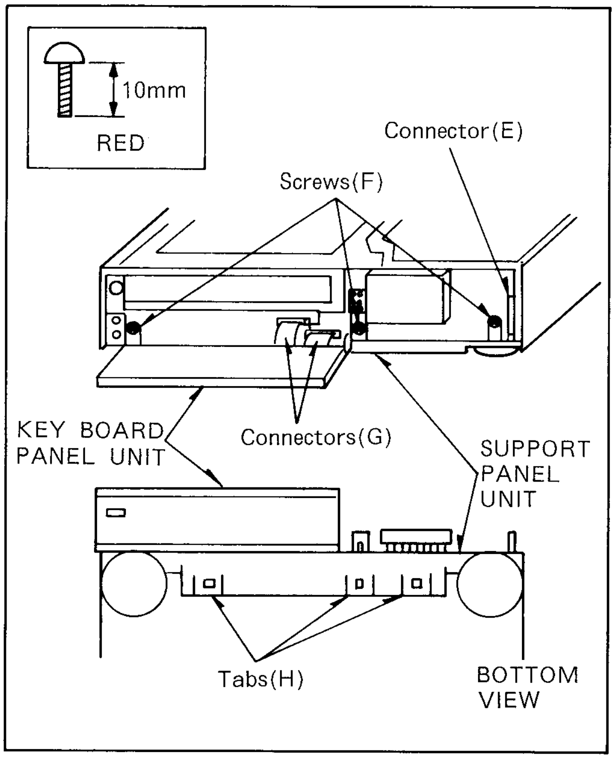

10mm
RED
Connector(E)
Screws(F)
KEY BOARD PANEL UNIT
Connectors(G)
SUPPORT PANEL UNIT
Tabs(H)
BOTTOM VIEW

Fig. D5

5. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

REMOVAL OF THE MAIN C.B.A.

* Remove.....3 Screws(I), 4 Screws(J)

REMOVAL OF THE POWER SUPPLY UNIT

* Remove.....Screw(K), 2 Screws(L)

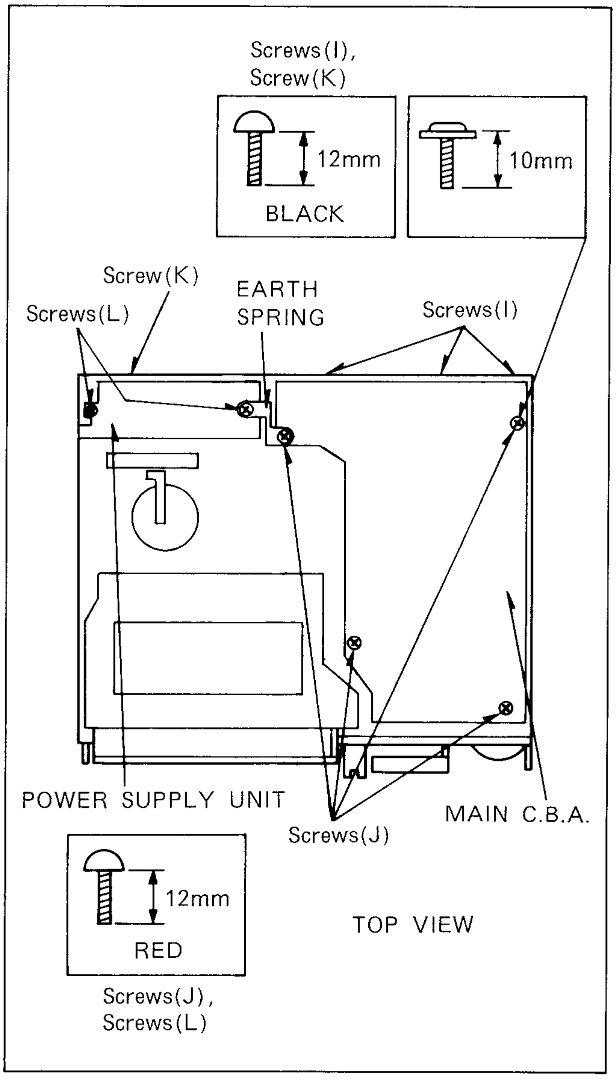

Screws(I),
Screw(K)
12mm
BLACK
10mm
Screw(K)
EARTH SPRING
Screws(L)
Screws(I)
POWER SUPPLY UNIT
Screws(J)
MAIN C.B.A.
12mm
RED
TOP VIEW
Screws(J),
Screws(L)

Fig. D6

6.REMOVAL OF THE VR C.B.A. AND TIMER C.B.A.

REMOVAL OF THE VR C.B.A.

* Remove.....Screw(M)
Unlock.....2 Tabs(N)

REMOVAL OF THE TIMER C.B.A.

* Remove.....Screw(O)
Unlock.....2 Tabs(P)

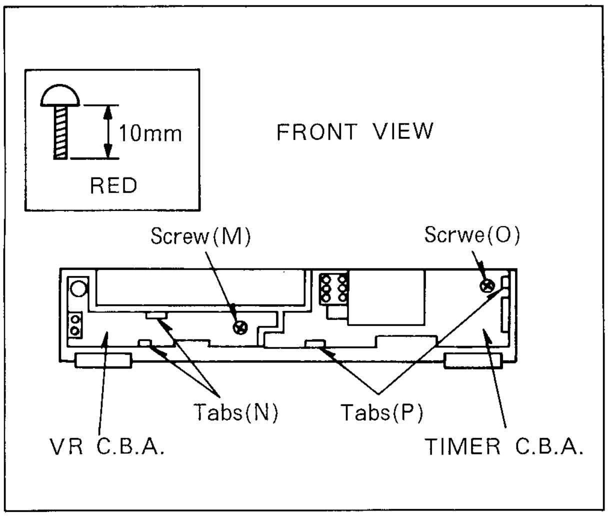

10mm
RED
FRONT VIEW
Screw(M)
Scrwe(O)
Tabs(N)
Tabs(P)
VR C.B.A.
TIMER C.B.A.

Fig. D7

7.REMOVAL OF THE JOG C.B.A.

* Remove.....4 Screws(Q)
(2 Screws(R)...For the JOG DIAL)

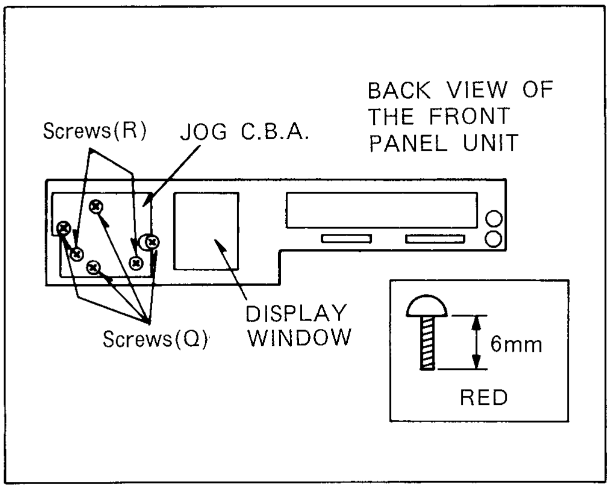

BACK VIEW OF THE FRONT PANEL UNIT
Screws(R)
JOG C.B.A.
Screws(Q)
DISPLAY WINDOW
6mm
RED

Fig. D8

8.SERVICING

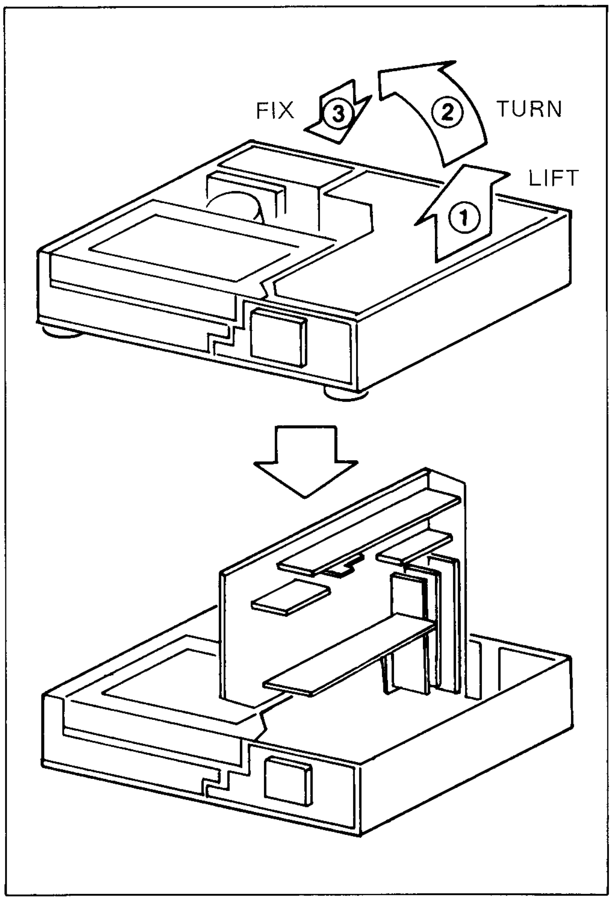

FIX ③
② TURN
① LIFT

Fig. D9

9.REMOVAL OF THE CASSETTE COMPARTMANT

Remove 2 Screws(S) and slide the cassette holder until appearing 2 Screws(T) by turning(clockwise) the Capstan Rotor Unit (located in the bottom side) and then remove 2 Screws(T).
Remove the flexible wire from connector P1503 mounted on Take–up Photo Tr. C.B.A., then carefully pull out the cassette compartment.

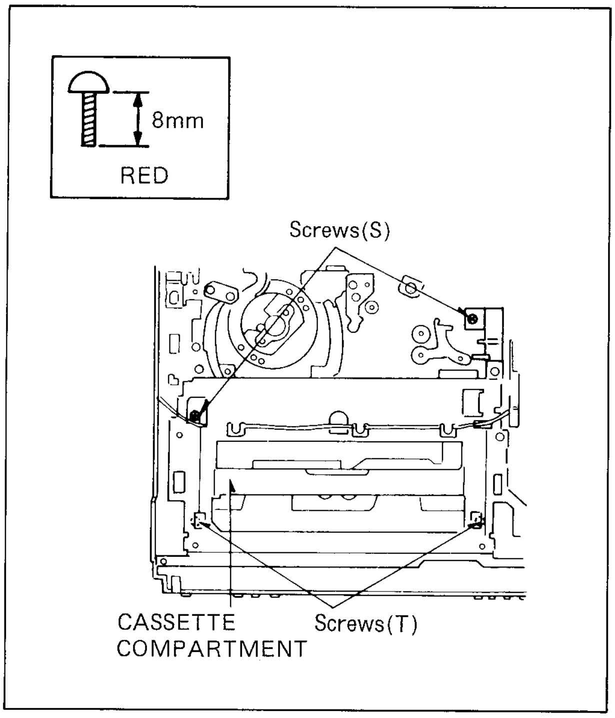

8mm
RED
Screws(S)
CASSETTE COMPARTMENT
Screws(T)

Fig. D10

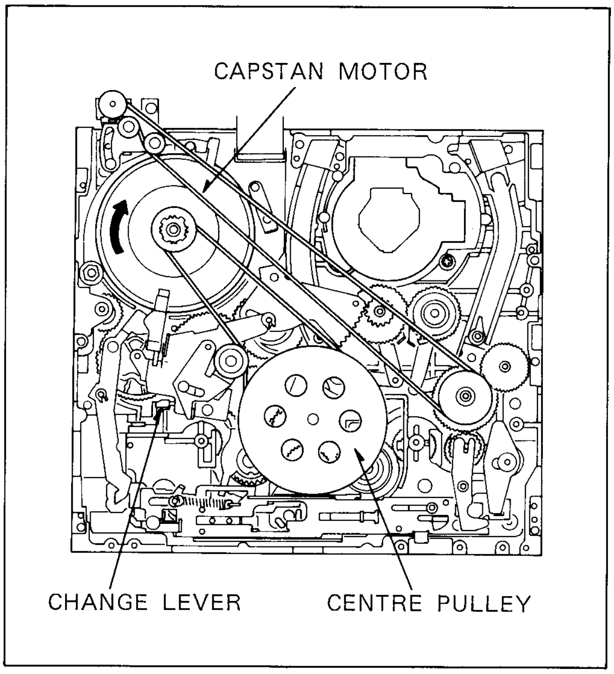

CAPSTAN MOTOR
CHANGE LEVER
CENTRE PULLEY

Fig. D11

2-2. MECHANICAL ADJUSTMENT PROCEDURES

The Mechanical Chassis of this model is similar to the G–II Mechanical Chassis. Therefore please refer to the Service Manual "G–II/G–REV." (Order No.VRD8901M101), except the adjustment as shown below.

2–2–1.TAPE INTERCHANGEABILITY ADJUSTMENT

CAUTIONS:
Make a Test Mode as shown in Fig.M1 (Connect a Cut Jumper Wire.)

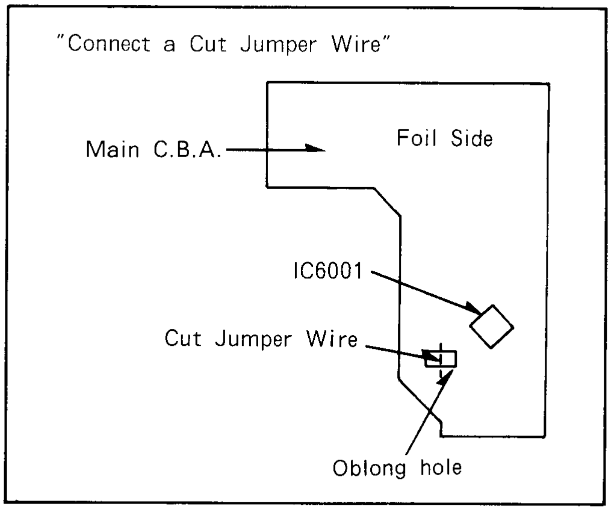
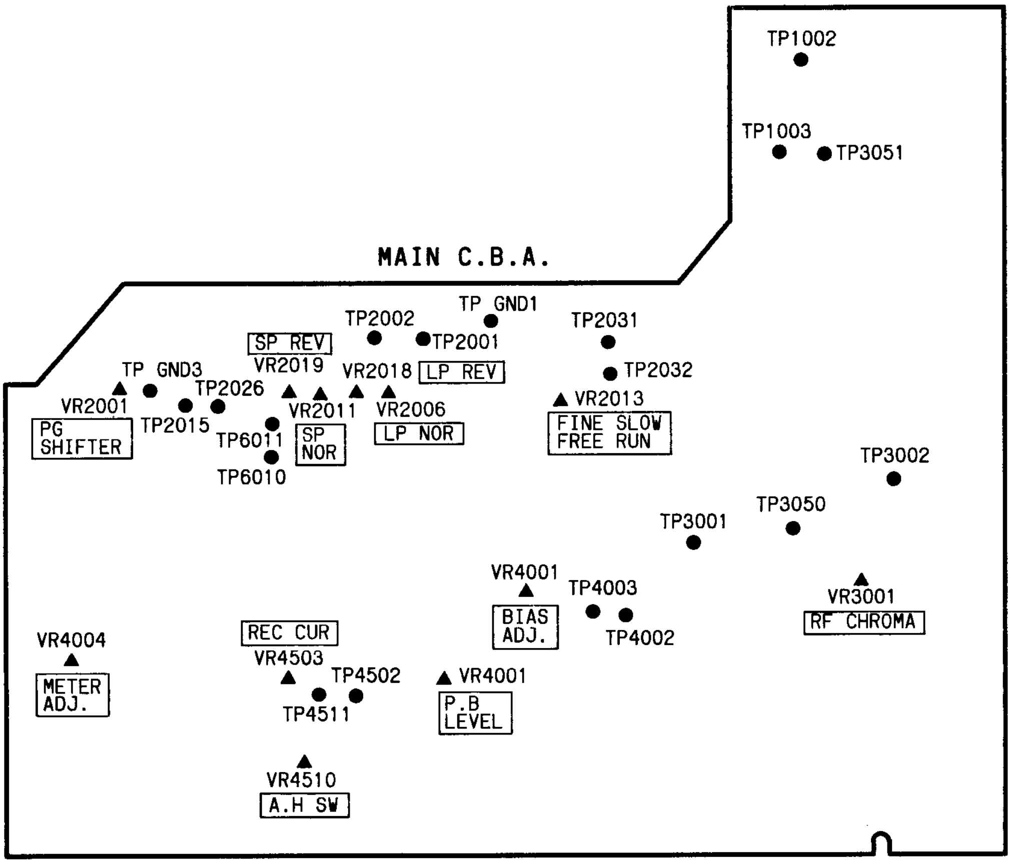

"Connect a Cut Jumper Wire"
Main C.B.A.
Foil Side
IC6001
Cut Jumper Wire
Oblong hole

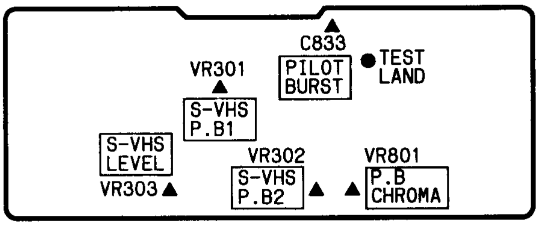
Fig. M1 Test Mode

NOTE:
Adjustment procedures and specifications are the same as the Service Manual "G–II/G–REV." item 2–2–9.
Please refer to the Service Manual "G–II/G–REV." (Order No.VRD8901M101).

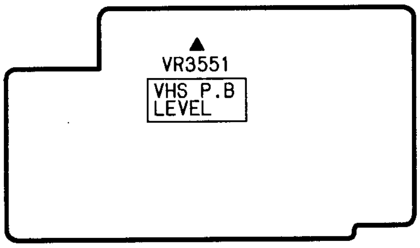
LOCATION OF TEST POINTS & CONTROLS


MAIN C.B.A.
TP1002
TP1003
TP3051
TP GND1
TP2002
TP2001
TP2031
SP REV
VR2019
VR2018
LP REV
TP2032
TP GND3
TP2026
VR2001
VR2011
VR2006
VR2013
PG SHIFTER
TP2015
TP6011
SP NOR
LP NOR
FINE SLOW FREE RUN
TP6010
TP3002
TP3050
TP3001
VR4001
TP4003
VR3001
BIAS ADJ.
TP4002
RF CHROMA
REC CUR
VR4004
VR4503
TP4502
VR4001
METER ADJ.
TP4511
P.B LEVEL
VR4510
A.H SW

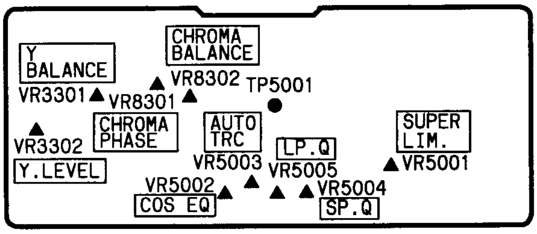
LUMINANCE & CHROMINANCE PACK C.B.A.


C833
TEST LAND
VR301
PILOT BURST
S-VHS P.B1
S-VHS LEVEL
VR302
VR801
VR303
S-VHS P.B2
P.B CHROMA

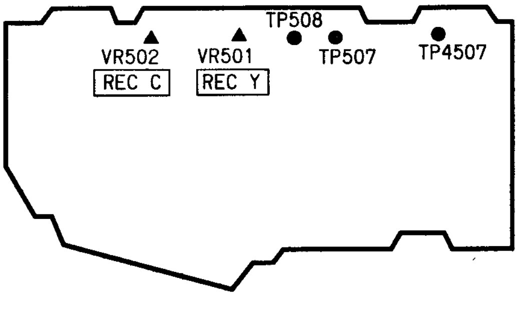
SUB LUMINANCE & CHROMINANCE C.B.A.


VR3551
VHS P.B LEVEL

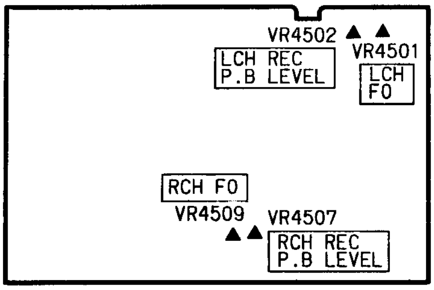
HQ PACK C.B.A.


CHROMA BALANCE
Y BALANCE
VR8302
TP5001
VR3301
VR8301
VR3302
CHROMA PHASE
AUTO TRC
LP.Q
SUPER LIM.
Y.LEVEL
VR5003
VR5005
VR5001
VR5002
VR5004
COS EQ
SP.Q

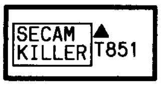
HEAD AMP C.B.A.

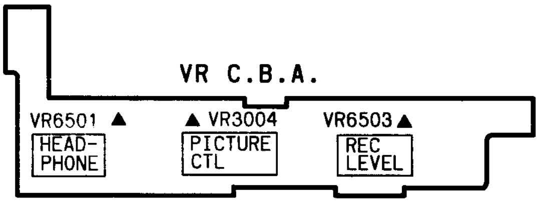

TP508
VR502
VR501
TP507
TP4507
REC C
REC Y

Hi-Fi AUDIO PACK C.B.A.

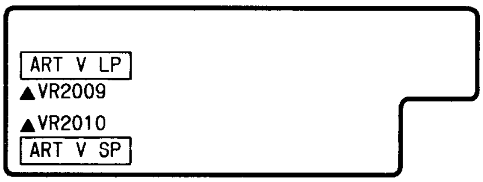

VR4502
VR4501
LCH REC
P.B LEVEL
LCH
FO
RCH FO
VR4509
VR4507
RCH REC
P.B LEVEL

DDR SECAM
PACK C.B.A.

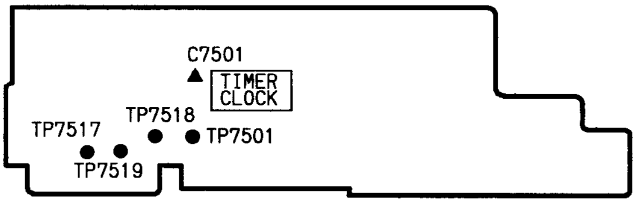

SECAM
KILLER
T851


VR C.B.A.
VR6501
HEAD-
PHONE
VR3004
PICTURE
CTL
VR6503
REC
LEVEL

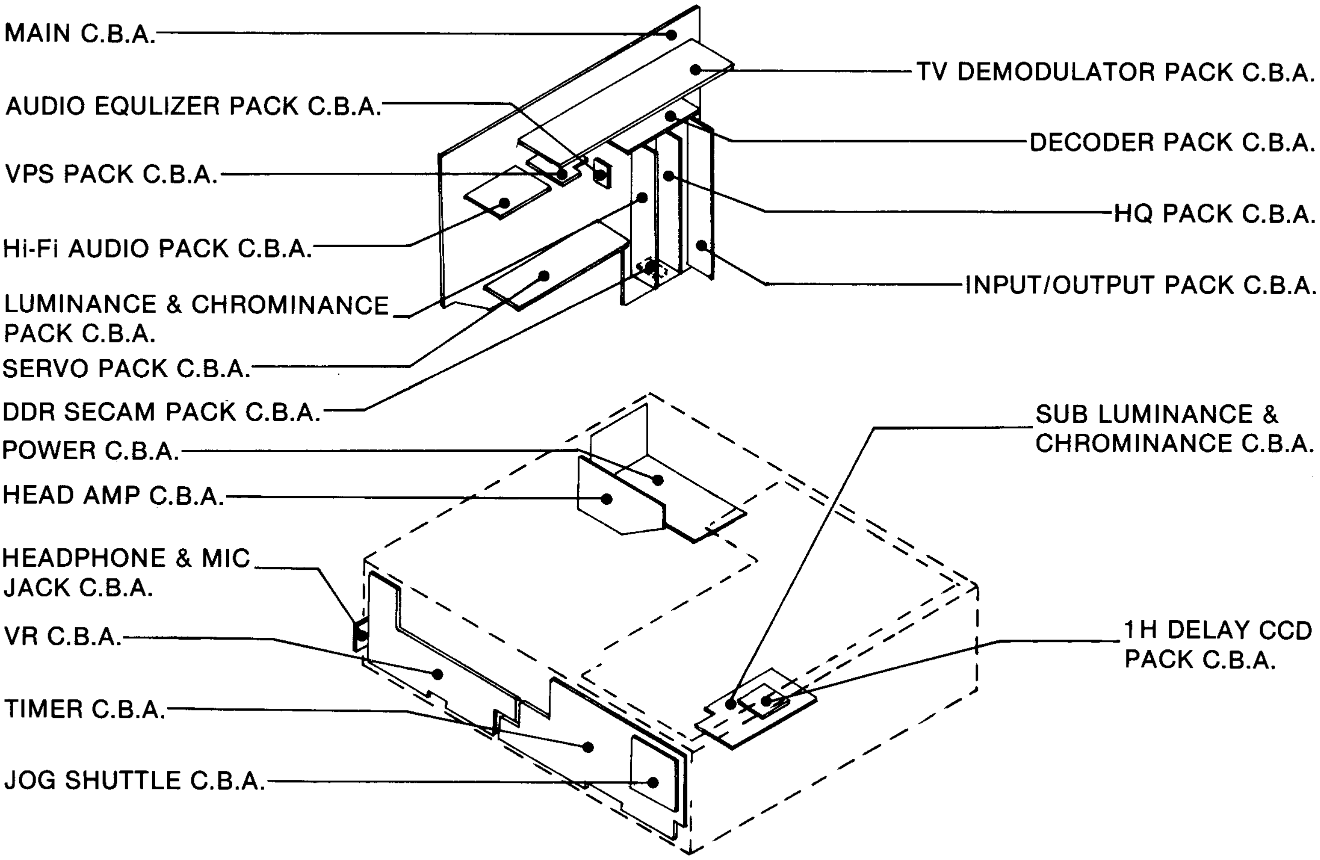
INPUT/OUTPUT PACK C.B.A.


ART V LP
VR2009
VR2010
ART V SP

TIMER C.B.A.


C7501
TIMER
CLOCK
TP7518
TP7517
TP7501
TP7519

CIRCUIT BOARD LAYOUT


MAIN C.B.A.
AUDIO EQULIZER PACK C.B.A.
VPS PACK C.B.A.
Hi-Fi AUDIO PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
SERVO PACK C.B.A.
DDR SECAM PACK C.B.A.
POWER C.B.A.
HEAD AMP C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.
JOG SHUTTLE C.B.A.
TV DEMODULATOR PACK C.B.A.
DECODER PACK C.B.A.
HQ PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
SUB LUMINANCE & CHROMINANCE C.B.A.
1H DELAY CCD PACK C.B.A.

2-3. ELECTRICAL ADJUSTMENT PROCEDURES

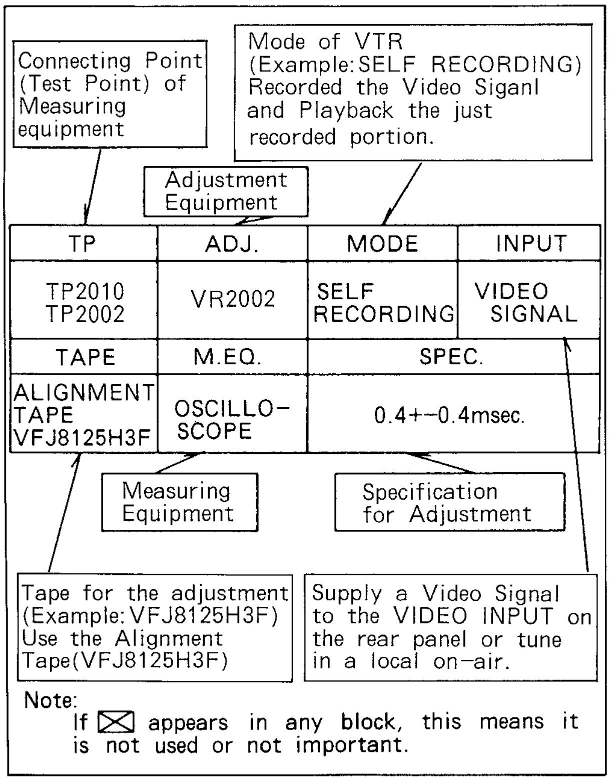
This section provides complete electrical adjustment procedures which may be required for electronic circuits of S-VHS Video Cassette Recorder NV-FS90EG.

2-3-1.TEST EQUIPMENTS

To perform the electrical adjustment completely, following equipments are required.

1. VTVM(Vacuum Tube Volt Meter) or DVM(Digital Volt Meter)
   Voltage Range : 0.001～50V
2. DUAL-TRACE OSCILLOSCOPE
   Voltage Range : 0.005～50V/div.
   Frequency Range : DC-30MHz
   Probes : 10:1
3. FREQUENCY COUNTER
   Frequency Range : 0～10MHz
4. SIGNAL GENERATOR(SINEWAVE)
   Frequency Range : 0～500KHz
5. VIDEO SWEEP GENERATOR
   Frequency Range : 0～10MHz
6. COLOUR MONITOR TV
7. PLASTIC TIP DRIVER
8. VHS ALIGNMENT TAPE(VFJ8125H3F)
9. PATTERN GENERATOR
10. VHS BLANK TAPE
11. S-VHS BLANK TAPE
12. VECTOR SCOPE

2-3-2.HOW TO READ THE ADJUSTMENT PROCEDURES



Connecting Point (Test Point) of Measuring equipment

Mode of VTR (Example:SELF RECORDING) Recorded the Video Siganl and Playback the just recorded portion.

Adjustment Equipment

TP	ADJ.	MODE	INPUT
TP2010 TP2002	VR2002	SELF RECORDING	VIDEO SIGNAL
TAPE	**M.EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	0.4+-0.4msec.	

Measuring Equipment

Specification for Adjustment

Tape for the adjustment (Example:VFJ8125H3F) Use the Alignment Tape(VFJ8125H3F)

Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air.

Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

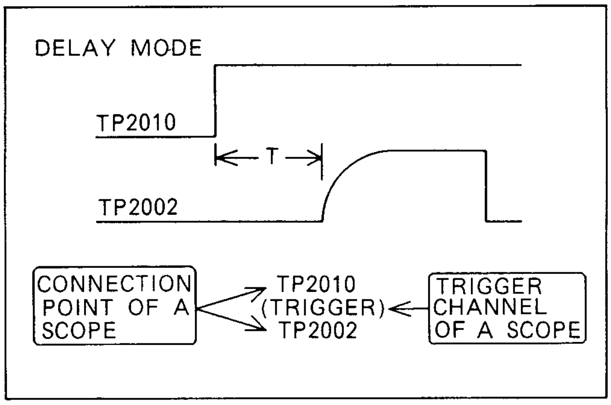


Fig. E2

NOTE:
Before the electrical adjustment, set the VTR as following conditions except for especial instructions in each adjustment item.

1. Picture Sharpness Control .....CENTRE FIX Position
2. Headphone Output Level Control .....CENTRE Position
3. Noise Filter/Edit Selector .....OFF Position
4. S-VHS Selector .....ON Position
5. Tape Spped Button .....SP Mode
6. Audio Recording Level Control Selector .....AGC Position
7. MPX Filter Switch .....OFF Position
8. Hi-Fi/Normal Mix Switch .....OFF Position
9. Tape Select Switch .....E180 Position
10. Input Signal Selector .....AV2(Line) Position
11. Simulcast Switch .....OFF Position
12. Test Signal Switch .....OFF Position
13. Normal/Y/C Selector .....NORMAL Position
14. Hi-Fi Rec Level Controls .....CENTRE FIX Position
15. Remote Control Mode Select Switch .....VTR1 Position
16. System Select Switch .....AUTO Position

SERVO Section

2-3-3.PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 HQ PACK-(7)	VR2001	PLAY	☒
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	7.0+-0.5H	

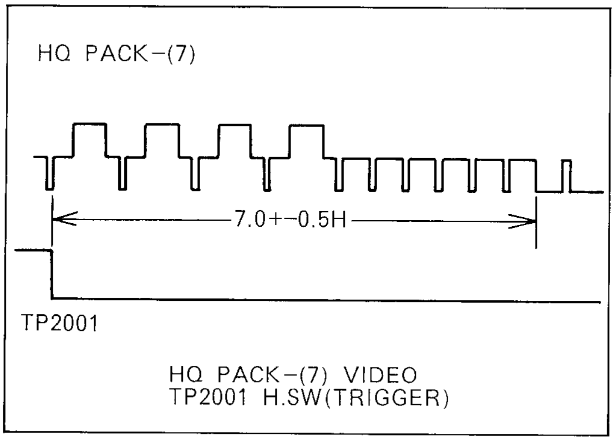


Fig. E3

2-3-4.SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	SELF RECORDING (STILL MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	FREQUENCY COUNTER	453+-15Hz	

1. Record the Video Siganl in SP mode and playback the just recorded portion. Then place the unit in STILL mode.
2. Make a Test Mode as shown in Fig.E4. Connect a Cut Jumper Wire.
3. Connect a jumper wire between.TP2026 and GND.
4. Adjust VR2013 so that reading of the Frequency Counter is 453+-15Hz.
5. After this adjustment, disconnect these jumper wires.

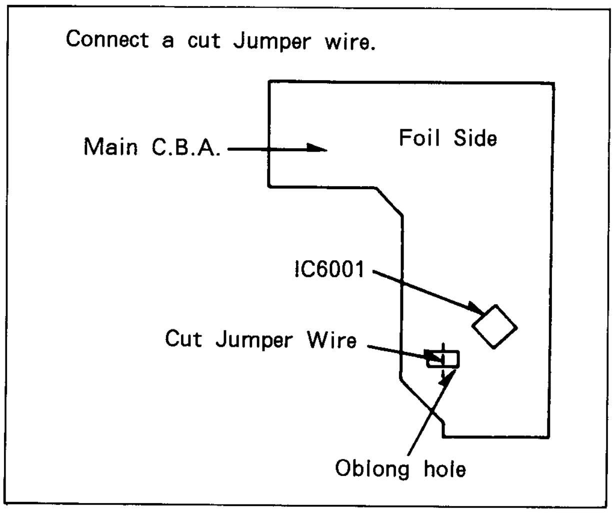


Fig. E4 Test Mode

2-3-5.VIDEO AUTO TRACKING GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
HQ PACK PIN-15	VR5003	PLAY	4MHz/ 200mVp-p (TO TP3001)
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFJ8125H 3F)	SIGNAL GEN./ D.V.M.	3.1+-0.1Vp-p	

1. Set the output of Sinewave Signal Generator to 4MHz/200mVp-p and supply it to TP3001 through a Capacitor(0.1uF).
2. Connect the D.V.M.(Digital Volt Meter) to HQ PACK-(15).
3. Disconnect the connector P501 on HEAD AMP C.B.A..
4. Playback the Alignment Tape(VFJ8125H3F).
5. Adjust VR5003 so that reading of D.V.M. is 3.1+-0.1Vp-p.

2-3-6.ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	VR2010(SP) VR2009(LP)	SELF RECORDING (STILL MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	TV MONITOR	NO V-DANCING	

1. Record the Video Signal in SP mode and playback the just recorded portion. Then place the unit in STILL mode.
2. Adjust VR2010 so that the V-Dancing does not appear on the Monitor Screen.
3. Record the Video Signal in LP mode and playback the just recorded portion. Then place the unit in STILL mode.
4. Adjust VR2009 so that the V-Dancing does not appear on the Monitor Screen.

2-3-7.SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2011(SP) VR2006(LP)	SELF RECORDING (SLOW MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	17.5+-2msec.(SP) 12+-2msec.(LP)	

1. Record the Video Signal in SP mode and playback the just recorded portion.Then place the unit in 1/5 Spped Slow Mode by Shuttle Ring as shown in Fig.E6.
2. Adjust VR2011 so that the phase difference becomes 17.5+-2msec. as shown in Fig.E5.

3. Record the Video Signal in LP mode and playback the just recorded portion.Then place the unit in 1/5 Spped Slow Mode by Shuttle Ring as shown in Fig.E6.
4. Adjust VR2006 so that the phase difference becomes 12+−2msec. as shown in Fig.E5.

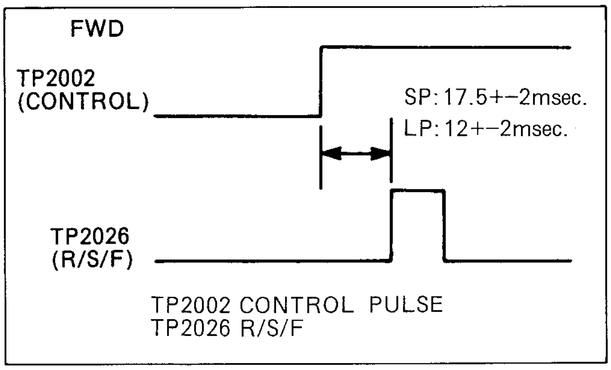
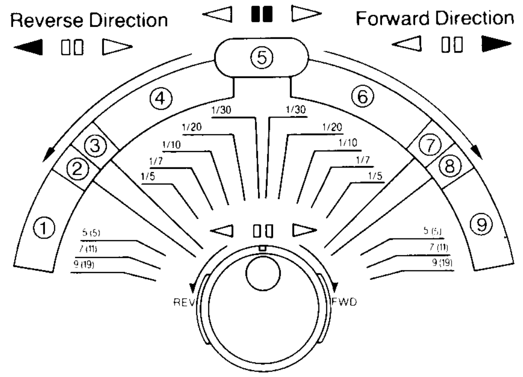

FWD
TP2002
(CONTROL)
SP: 17.5+−2msec.
LP: 12+−2msec.
TP2026
(R/S/F)
TP2002 CONTROL PULSE
TP2026 R/S/F

Fig. E5


Reverse Direction
Forward Direction
⑤
④
⑥
③
②
①
⑦
⑧
⑨
1/30
1/30
1/20
1/20
1/10
1/10
1/7
1/7
1/5
1/5
5(5)
7(11)
9(19)
5(5)
7(11)
9(19)
REV
FWD

Playback Mode	Indication
① Review Playback	◁◁
② Double Speed Reverse Playback	◁ ×2
③ Reverse Playback	◁
④ Reverse Slow Motion Playback	◁▯
⑤ Still Playback	▯▯
⑥ Slow Motion Playback	▯▷
⑦ Normal Playback	▷
⑧ Double Speed Playback	▷ ×2
⑨ Cue Playback	▷▷

Shuttle Ring Setting and Corresponding Playback Speed and Direction

Fig. E6

2−3−8.REVERSE SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2019(SP) VR2018(LP)	SELF RECORDING (REVERSE SLOW MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO−SCOPE	14+−2msec.(SP) 7+−2msec.(LP)	

1. Record the Video Signal in SP mode and playback the just recorded portion. Then place the unit in 1/5 Spped Reverse Slow Mode by Shuttle Ring as shown in Fig.E6.
2. Adjust VR2019 so that the phase difference becomes 14+−2msec. as shown in Fig.E7.
3. Record the Video Signal in LP mode and playback the just recorded portion. Then place the unit in 1/5 Spped Reverse Slow Mode by Shuttle Ring as shown in Fig.E6.
4. Adjust VR2018 so that the phase difference becomes 7+−2msec. as shown in Fig.E7.

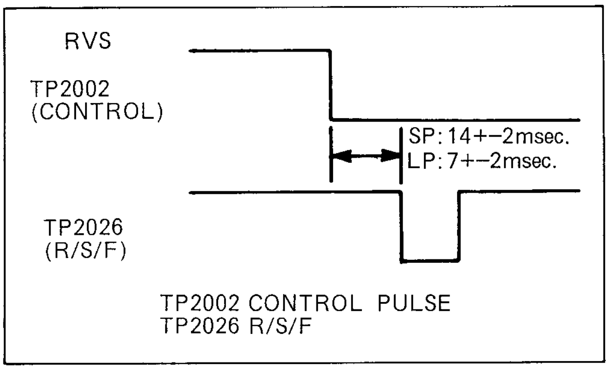

RVS
TP2002
(CONTROL)
SP: 14+−2msec.
LP: 7+−2msec.
TP2026
(R/S/F)
TP2002 CONTROL PULSE
TP2026 R/S/F

Fig. E7

LUMINANCE, CHROMINANCE & HEAD AMP Section

2−3−9.Y−NR GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3051	VR303	STOP	COLOUR BAR (S−VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S−VHS BLANK TAPE	OSCILLO−SCOPE	800+−20mVp−p (75ohm Terminated)	

1. Supply the Video Signal to S−VIDEO INPUT Socket.
2. Set the Input Signal Selector to S−VIDEO position.
3. Set the Tape Speed Button to LP mode.
4. Adjust VR303 so that the Video Level becomes 800+−20mVp−p.

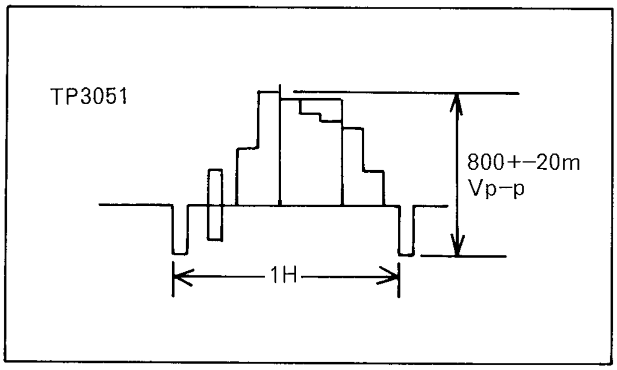


Fig. E8

NOTE:
This adjustment should be completed before the luminance and chrominance recording current adjustment.

2−3−10. CHROMINANCE & LUMINANCE RECORDING CURRENT ADJUSTMENT

*S−VHS CHROMINANCE RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR502	RECORDING (SP MODE)	COLOUR BAR (S−VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S−VHS BLANK TAPE	OSCILLO−SCOPE	28+−2mVp−p	

1. Supply the Video Signal to S−VIDEO INPUT Socket.
2. Set the Input Signal Selector to S−VIDEO position.
3. Connect the oscilloscope to TP507(HOT) and TP508(GND).
4. Connect a jumper wire between Cathode of D3004 and TP1003(+5V Line).
5. Adjust VR502 so that the Chrominance Current Level becomes 28+−2mVp−p.

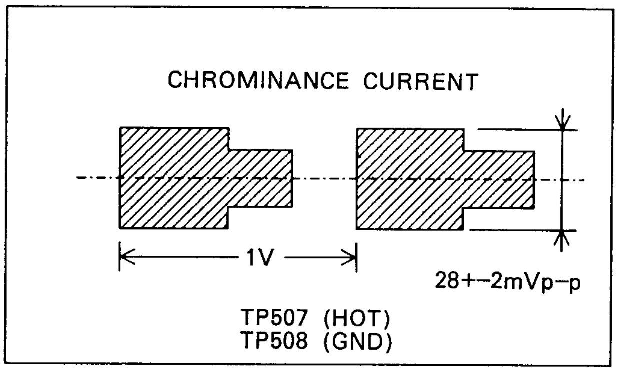


Fig. E9

*S−VHS LUMINANCE RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR501	RECORDING (SP MODE)	COLOUR BAR (S−VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S−VHS BLANK TAPE	OSCILLO−SCOPE	120+−5mVp−p	

1. Supply the Video Signal to S−VIDEO INPUT Socket.
2. Set the Input Signal Selector to S−VIDEO position.
3. Connect the oscilloscope to TP507(HOT) and TP508(GND).
4. Adjust VR501 so that the Luminance Current Level becomes 120+−5mVp−p.

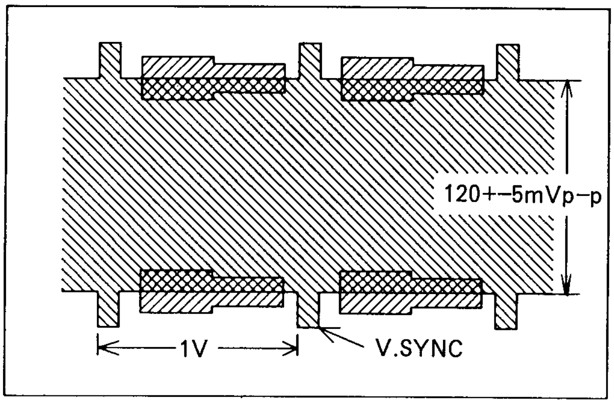


Fig. E10

*VHS LUMINANCE RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR3001	RECORDING (SP MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO−SCOPE	110+−5mVp−p	

1. Set the S−VHS Selector to OFF position.
2. Connect the oscilloscope to TP507(HOT) and TP508(GND).
3. Adjust VR3001 so that the Luminance Current Level becomes 110+−5mVp−p.

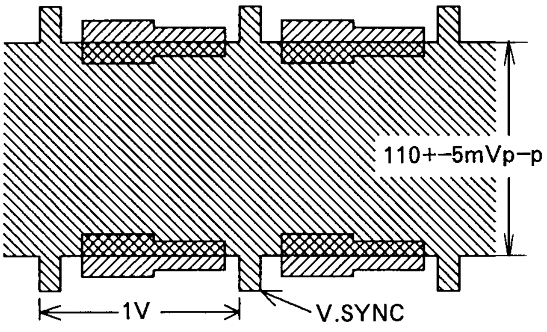

110+-5mVp-p
1V
V.SYNC

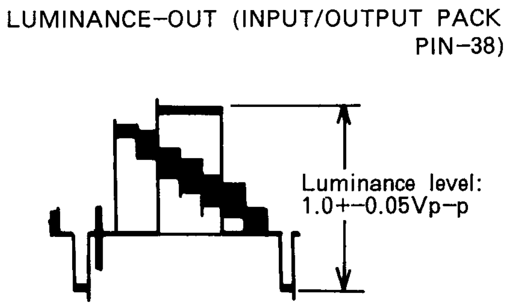
Fig. E11

NOTE:
This adjustment should be completed after S-VHS Luminance and Chrominance Recording Current Adjustment.

2-3-11.PLAYBACK VIDEO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
INPUT/ OUTPUT PACK-38(Y) 40(C)	VR302(Y) VR301(C)	SELF RECORDING (SP MODE)	COLOUR BAR (S-VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05Vp-p(Y) 0.55+-0.05Vp-p(C)	

1. Supply the Video Signal to S-VIDEO INPUT Socket.
2. Set the Input Signal Selector to S-VIDEO position.
3. Connect the oscilloscope to INPUT/OUTPUT PACK-(38).
4. Playback the just recorded portion.
5. Adjust VR302 so that the Luminance Level becomes 1.0+-0.05Vp-p.
6. Connect the oscilloscope to INPUT/OUTPUT PACK-(40).
7. playback the just recorded portion.
8. Adjust VR801 sothat the Cyan Level becomes 0.55+-0.05Vp-p.


LUMINANCE-OUT (INPUT/OUTPUT PACK PIN-38)
Luminance level:
1.0+-0.05Vp-p

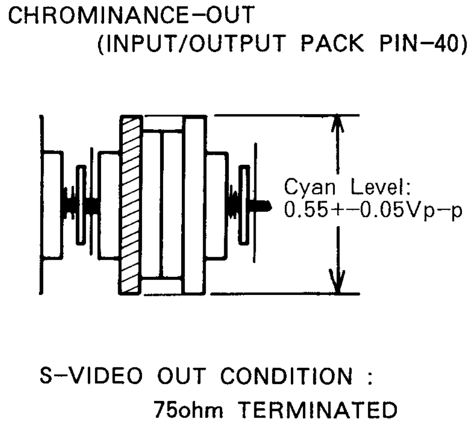

CHROMINANCE-OUT
(INPUT/OUTPUT PACK PIN-40)
Cyan Level:
0.55+-0.05Vp-p
S-VIDEO OUT CONDITION :
75ohm TERMINATED

Fig. E12

2-3-12.S-VHS COS EQ ADJUSTMENT

TP	ADJ.	MODE	INPUT
INPUT/ OUTPUT PACK-(38)	VR5002	SELF RECORDING (SP MODE)	VIDEO SWEEP (S-VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	OSCILLO-SCOPE	-4.5+-0.5dB (56 ~ 63%)	

1.Set the Sweep Generator Output as shown below.

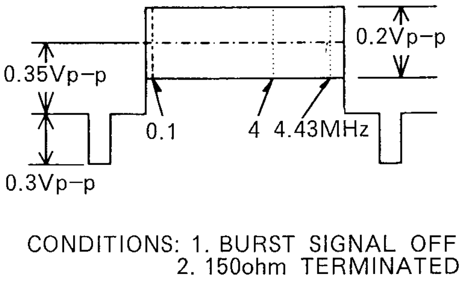

0.2Vp-p
0.35Vp-p
0.1
4
4.43MHz
0.3Vp-p
CONDITIONS: 1. BURST SIGNAL OFF
2. 150ohm TERMINATED

Fig. E13

2. Supply the Video Siganl to S-VIDEO INPUT Socket.
3. Set the Input Signal Selector to S-VIDEO position.
4. Playback the just recorded portion.
5. Adjust VR5002 so that the level at 4MHz becomes -4.5+-0.5dB(56~63%) comparing with the level at 0.1MHz as shown in Fig.E14.

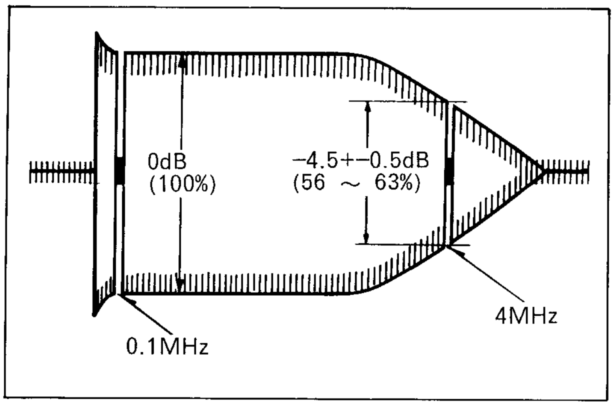

0dB
(100%)
−4.5+−0.5dB
(56 ~ 63%)
0.1MHz
4MHz

Fig. E14

2-3-13.VHS FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR5004(SP) VR5005(LP)	SELF RECORDING	VIDEO SWEEP (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE	A=0+−1dB(90~110%) : SP A=0+−1dB(90~110%) : LP	

1. Set the Sweep Generator Output as shown in Fig.E15.

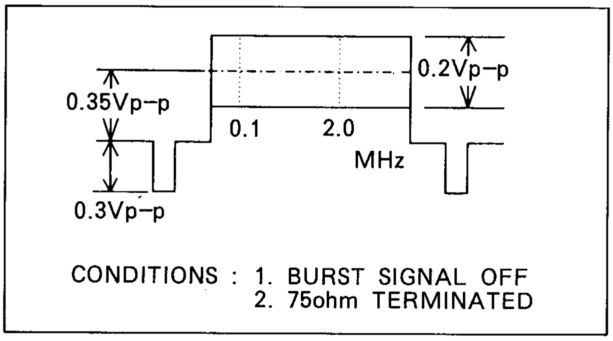

0.2Vp−p
0.35Vp−p
0.1
2.0
MHz
0.3Vp−p
CONDITIONS : 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E15

2. Supply the Video Sweep to VIDEO INPUT Socket(AV2).
3. Playback the just recorded portion in SP mode.
4. Adjust VR5004(SP) so that the level at 2MHz(A) becomes within specification comparing with the level at 0.1MHz as shown in Fig.E16.
5. Set the Tape Speed Buttun to LP mode.
6. Playback the just recorded portion in LP mode.
7. Adjust VR5005(LP) so that the level at 2MHz(A) becomes within specification comparing with the level at 0.1MHz as shown in Fig.E16.

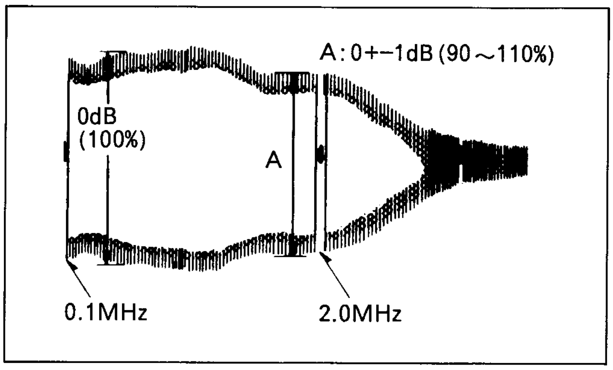

A : 0+−1dB (90 ~110%)
0dB
(100%)
A
0.1MHz
2.0MHz

Fig. E16

2-3-14.SECAM KILLER ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC851−(11)	T851	SELF RECORDING (SP MODE)	SECAM VIDEO SIGNAL (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	MAXIMUM AS POSSIBLE	

1. Adjust T851 so that the points"A" becomes maximum on the waveform.

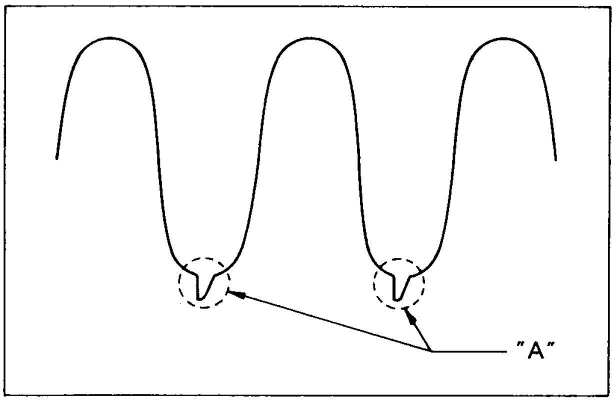


Fig. E17

2-3-15.PILOT BURST PHASE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC801−(15)	C833	STOP	COLOUR BAR (S−VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
	VECTOR-SCOPE	−95+−5degrees	

1. Supply the Video Signal to S–VIDEO INPUT Socket.
2. Set the Input Signal Selector to S–VIDEO position.
3. Connect a jumper wire between IC801–(5) and GND.
4. Connect a jumper wire between IC801–(37) and TP1003(+5V Line).
5. Connect the vectorscope to IC801–(15) and its external terminal for trigger to Line Output of VTR.
6. Adjust C833 so that the Pilot Burst Signal is placed in –95+–5degrees against the U–Axis an vectorscope.
7. After this adjustment, disconnect these jumper wires.

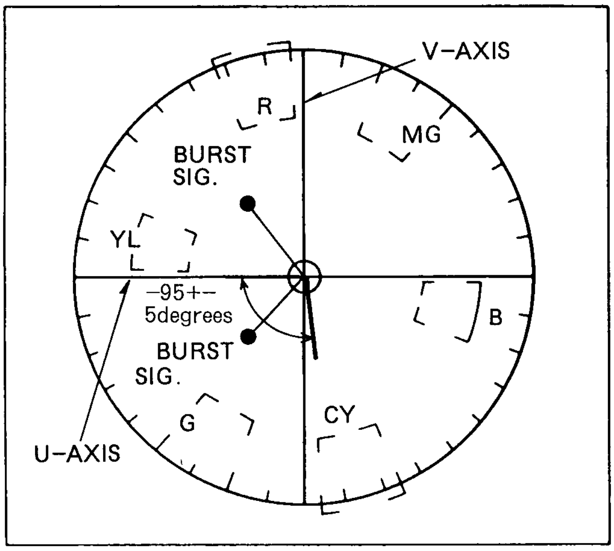


Fig. E18

2–3–16.S–VHS PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC303–(2)	VR301	SELF RECORDING (SP MODE)	COLOUR BAR (S–VIDEO IN)
TAPE	**M. EQ.**	**SPEC.**	
S–VHS BLANK TAPE	OSCILLO–SCOPE	400+–10mVp–p	

1. Supply the Video Signal to S–VIDEO INPUT Socket.
2. Set the Input Signal Selector to S–VIDEO position.
3. Connect a Capacitor(3900pF) between IC303–(2) and GND.
4. Playback the just recorded portion.
5. Adjust VR301 so that the Luminance Level becomes 400+–10mVp–p.
6. After this adjustment, disconnect the Capacitor.

2–3–17. LUMINANCE NOISE REDUCTION BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3301–(21)	VR3301	RECORDING (LP MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO–SCOPE	WAVEFORM IS MINIMIZED	

1. Connect a Capacitor(1000pF) between IC3301–(21) and GND.
2. Record the Video Siganl in LP mode.
3. Adjust VR3301 so that the waveform is minimized.
4. After this adjustment, disconnect the Capacitor.

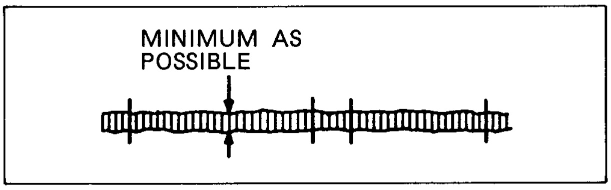


Fig. E19

2–3–18. LUMINANCE NOISE REDUCTION GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
P3301–(1), (4)	VR3302	STOP	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO–SCOPE	A LEVEL = B LEVEL	

1. Set the S–VHS Selector to OFF position.
2. Set the Tape Speed Button to LP mode.
3. Connect the oscilloscope to P3301–(1)(CH–A) and P3301–(4)(CH–B).
4. Adjust VR3302 so that the Luminance Level between "A" and "B" are the same level.

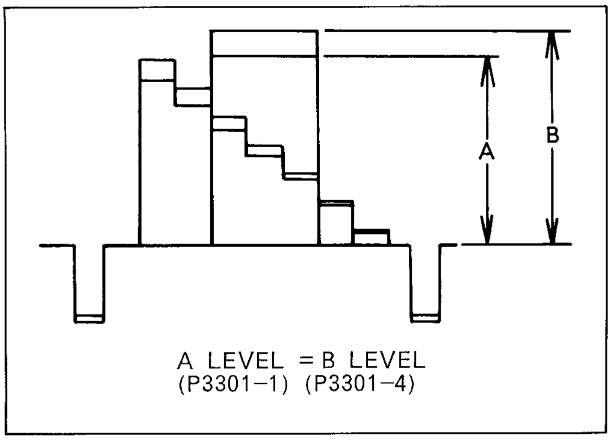


Fig. E20

2-3-19. CHROMINANCE RECURSIVE FILTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3301-(7)	VR8301 VR8302	SELF RECORDING (SP MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Playback the just recorded portion.
2. Adjust VR8301 and VR8302 mutually so that the Waveform is minimized.

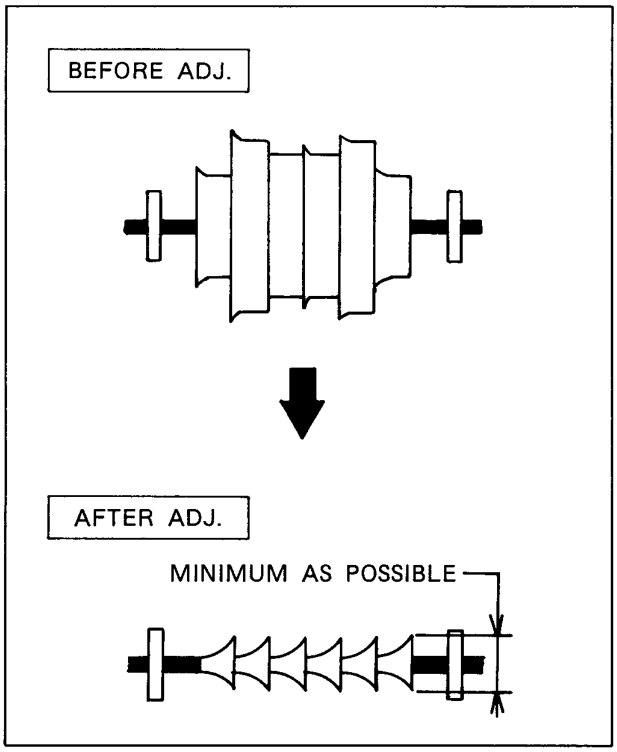


Fig. E21

NOTE:
This adjustment should be completed after All Adjustment of Recording mode.

2-3-20.SUPER LIMITER ADJUSTMENT

TP	ADJ.	MODE	INPUT
HQ PACK -(20)	VR5001	SELF RECORDING	SINEWAVE (7MHz/ 200mVp-p)
TAPE	**M. EQ.**	**SPEC.**	
S-VHS BLANK TAPE	SIGNAL GENE./ OSCILLO-SCOPE	150+-10mVp-p	

1. Set the Signal Generator Output to 7MHz/200mVp-p and the supply this sinewave to TP5001.
2. Connect a Resistor(100ohm) between Q5005-(B) and TP1003(+5V Line).
3. Playback the just recorded portion in S-VHS mode.
4. Adjust VR5001 so that the waveform level becomes 150+-10mVp-p.
5. After this adjustment, disconnect the Resistor.

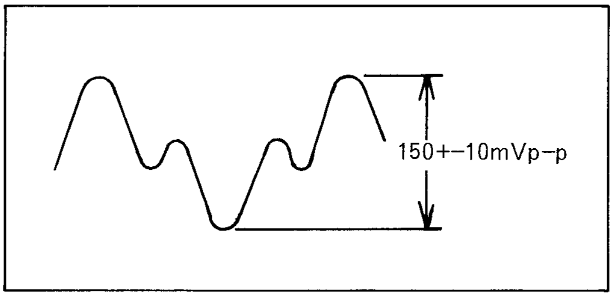


Fig. E22

2-3-21.1H DELAY LUMINANCE LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
P3503-(5)	VR3551	SELF RECORDING (SP MODE)	COLOUR BAR (LINE IN)
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	48+-2.5%	

1. Playback the just recorded portion.
2. Measure the Luminance Level at P3502-(1).
3. Adjust VR3551 so that the Luminance Level at P3503-(5) becomes within 48+-2.5% comparing with the Luminance Level at P3502-(1).

TIMER Section

2-3-22.TIMER CLOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7501	C7501		
TAPE	**M. EQ.**	**SPEC.**	
	UNIVERSAL COUNTER	7812.5+-0.015usec.	

NOTE:
(1) Do not connect the AC power plug.
(2) Make a short circuit at C1003 to discharge.

1. Set the voltage of the DC power supply for 5.0+-0.1V and supply it to P7501-(3),P7501-(4) (+) and GND(-).
2. Connect a jumper wire between P7501-(6) and GND.
3. Connect the Universal Counter to TP7501.
4. Adjust C7501 so that the Timer Clock Frequency becomes 7812.5+-0.015usec.

NORMAL AUDIO Section

2-3-23.AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (HOT) TP4003 (GND)	VR4002	RECORDING (SP MODE)	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	V.T.V.M.	2.9+-0.1mVrms	

NOTE:
Make a short circuit at terminal of the Audio Input.

2-3-24.AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT	VR4001	SELF RECORDING (SP MODE)	1KHz/-10dB AUDIO SIGNAL, VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	SIGNAL GENE./ V.T.V.M.	E-E LEVEL = -8+-2dB (300mVrms~500mVrms) PLAYBACK LEVEL = E-E LEVEL+-0.5dB (+-20mVrms)	

1. Set the Audio Output Selector to NORMAL position by Infra-red Remote Controller.(Both the Left and Right Indicators are not lit.)
2. Playback the just recorded portion.
3. Adjust VR4001 so that the level of the playback waveform becomes E-E Level+-0.5dB(+-20mVrms).

NOTE:
(1) Before this adjustment, "Tape Interchangeability Adjustment" and "Audio Bias Current Adjustment" must be completed.
(2) Video signal must be connected to video input.

Hi-Fi AUDIO Section

2-3-25.LEVEL METER SENSITIVITY ADJUSTMENT

TP	ADJ.	MODE	INPUT
LEVEL METER	VR4004	STOP	1KHz/-10dB AUDIO SIGNAL, VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GEN.	0dB INDICATOR JUST LIGHTS UP	

1. Set the Audio Output Selector to STEREO position by Infra-red Remote Controller.(Both the Left and Right Indicators are lit.)
2. Set the Audio Recording Level Control Selector to MANUAL position.
3. Adjust the output level with the Hi-Fi Rec Level Controls so that the Audio Outputs are 400mVrms at both Output Jacks (L) and (R).
4. Adjust VR4004 so that the 0dB indicator just lights up to the Level Meter as shown below.

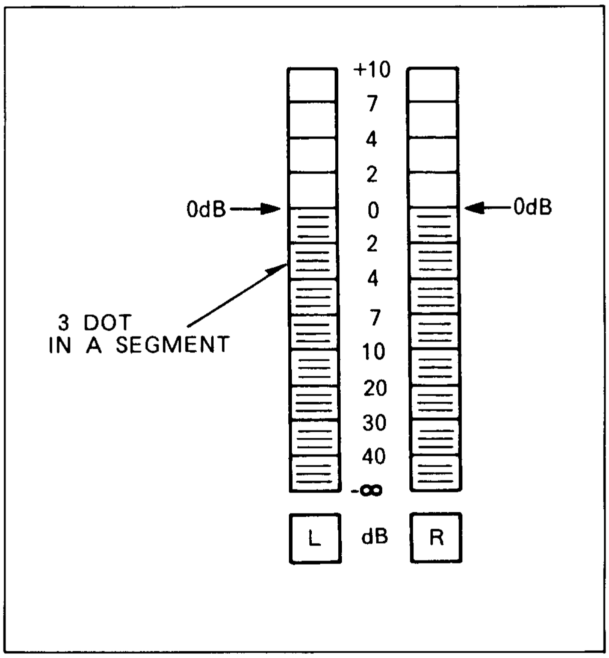


Fig. E23

2-3-26.Hi-Fi AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507 (HOT) SHIELD CASE(GND)	VR4503	RECORDING (SP MODE)	
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	OSCILLO-SCOPE	480+-10mVp-p	

1. Set the Audio Selector to STEREO position. (Both the Left and Right Indicators are lit.)
2. Connect the oscilloscope to TP4507(HOT) and Shield Case(GND).
3. Adjust VR4503 so that the Audio Recording Current becomes 480+-10mVp-p.

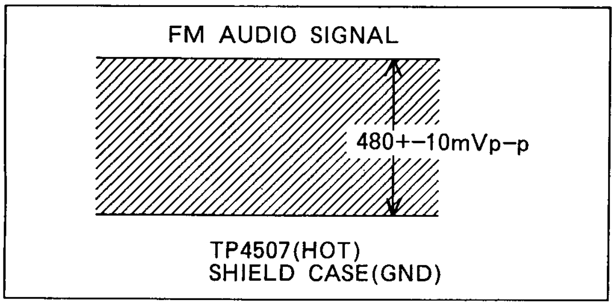


Fig. E24

NOTE:
Prior to Hi-Fi Audio Muting Adjustment, this adjustment must be completed.

2-3-27.AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4511 TP2001	VR4510	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE (VFJ8 125H3F)	OSCILLO-SCOPE	$T = \frac{T2-(T2-T1)\text{msec.}}{2}$	

1. Playback the Alignment Tape(VFJ8125H3F).
2. Connect the oscilloscope to TP4511 and TP2001.
3. Adjust VR4510 while listening to the stereo playback sound.
4. Confirm the "T2" time when the abnormal sound just occurs doring turning clockwise on VR4510.
5. Confirm the "T1" time when the abnormal sound just occurs during turning counter clockwise on VR4510.
6. Adjust VR4510 so that the falling edge "T" of Audio H.SW pulse becomes the centre portion of the both "T2" and "T1".

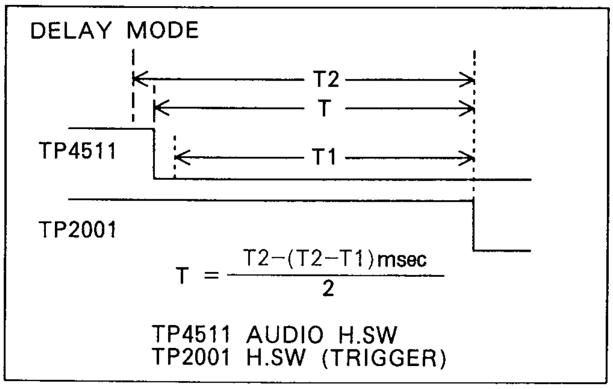


Fig. E25

2-3-28.Hi-Fi AUDIO CARRIER FREQUENCY ADJUSTMENT

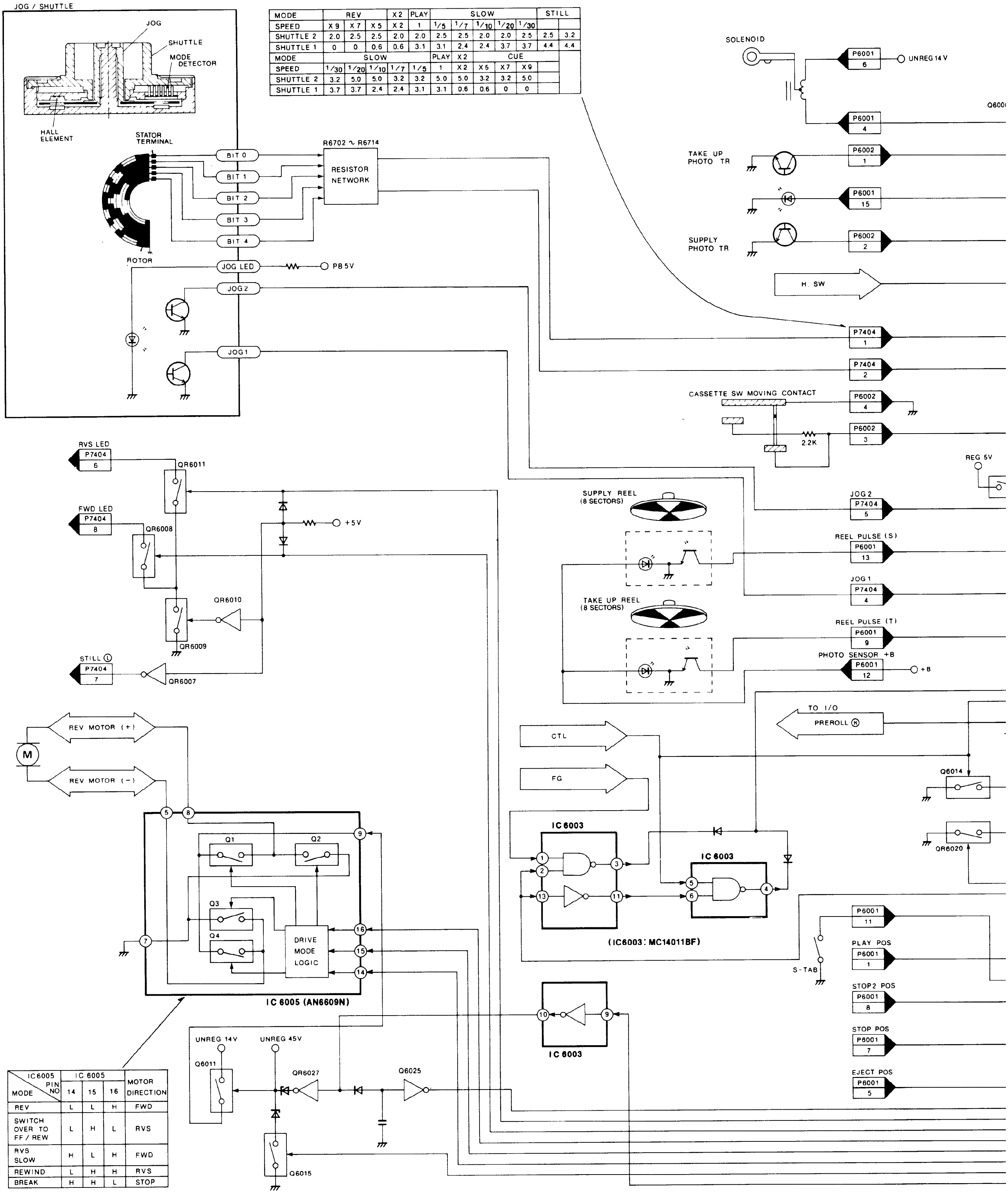
TP	ADJ.	MODE	INPUT
BETWEEN C4516 AND R4513 (L) BETWEEN C4566 AND R4563 (R)	VR4501(L) VR4509(R)	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	1400+-3KHz(L) 1800+-3KHz(R)	

2-3-29.Hi-Fi AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
BETWEEN VR4502 AND R4561 (L) BETWEEN VR4507 AND R4511 (R)	VR4502(L) VR4507(R)	RECORDING	1KHz/-10dB (316mVp-p) AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
VHS BLANK TAPE	SIGNAL GENE./ D.V.M.	360mVp-p	

1. Set the Audio Output Selector to STEREO position by Infra-red Remote Controller. (Both the Left and Right Indicators are lit.)
2. Set the Audio Recording Level Control Selector to MANUAL position.
3. Adjust the output level with the Hi-Fi Rec Level Controls so that the Audio Outputs are 400mVp-p at both Outputs Jack (L) and (R).
4. Adjust VR4502 to 360mVp-p at between VR4502 and R4561 on Hi-Fi Audio C.B.A. for L-Channel.
5. Adjust VR4507 to 360mVp-p at between VR4507 and R4511 on Hi-Fi Audio C.B.A. for R-Channnel.

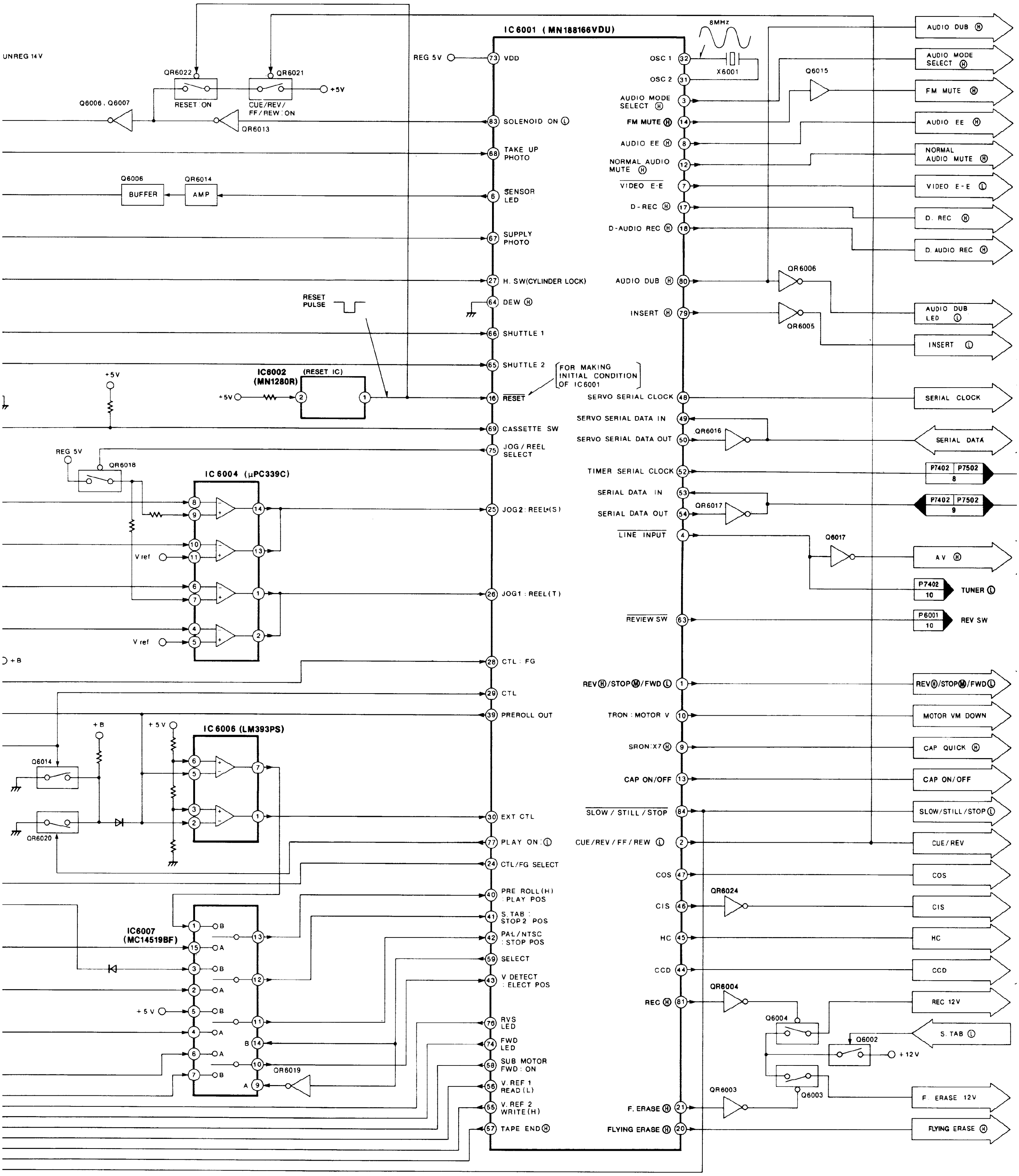
SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. SYSTEM CONTROL BLOCK DIAGRAM

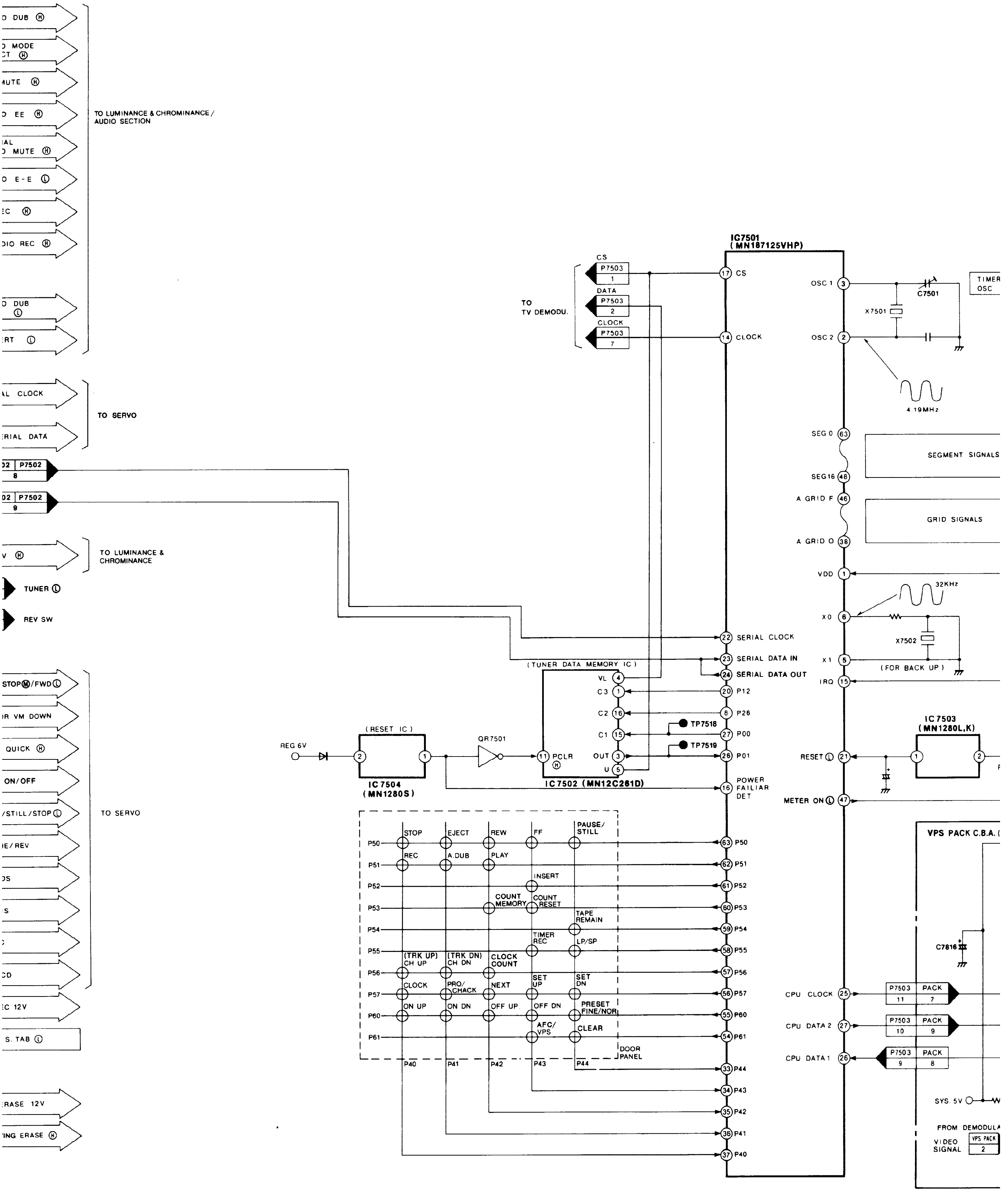

JOG / SHUTTLE
JOG
SHUTTLE
MODE DETECTOR
HALL ELEMENT
STATOR TERMINAL
ROTOR
BIT 0
BIT 1
BIT 2
BIT 3
BIT 4
JOG LED
JOG 2
JOG 1
R6702 ∼ R6714
RESISTOR NETWORK
PB 5V
SOLENOID
P6001 6
UNREG 14 V
P6001 4
Q600
TAKE UP PHOTO TR
P6002 1
P6001 15
SUPPLY PHOTO TR
P6002 2
H. SW
P7404 1
P7404 2
CASSETTE SW MOVING CONTACT
P6002 4
P6002 3
2.2K
REG 5V
RVS LED
P7404 6
QR6011
FWD LED
P7404 8
QR6008
+5V
QR6010
QR6009
STILL Ⓛ
P7404 7
QR6007
SUPPLY REEL (8 SECTORS)
JOG 2
P7404 5
REEL PULSE (S)
P6001 13
JOG 1
P7404 4
TAKE UP REEL (8 SECTORS)
REEL PULSE (T)
P6001 9
PHOTO SENSOR +B
P6001 12
+B
TO I/O
PREROLL Ⓗ
REV MOTOR (+)
M
REV MOTOR (−)
CTL
FG
Q6014
QR6020
IC 6003
IC 6003
(IC6003: MC14011BF)
Q1
Q2
Q3
Q4
DRIVE MODE LOGIC
IC 6005 (AN6609N)
P6001 11
PLAY POS
P6001 1
S-TAB
STOP2 POS
P6001 8
STOP POS
P6001 7
EJECT POS
P6001 5
IC 6003
UNREG 14V
UNREG 45V
Q6011
QR6027
Q6025
Q6015

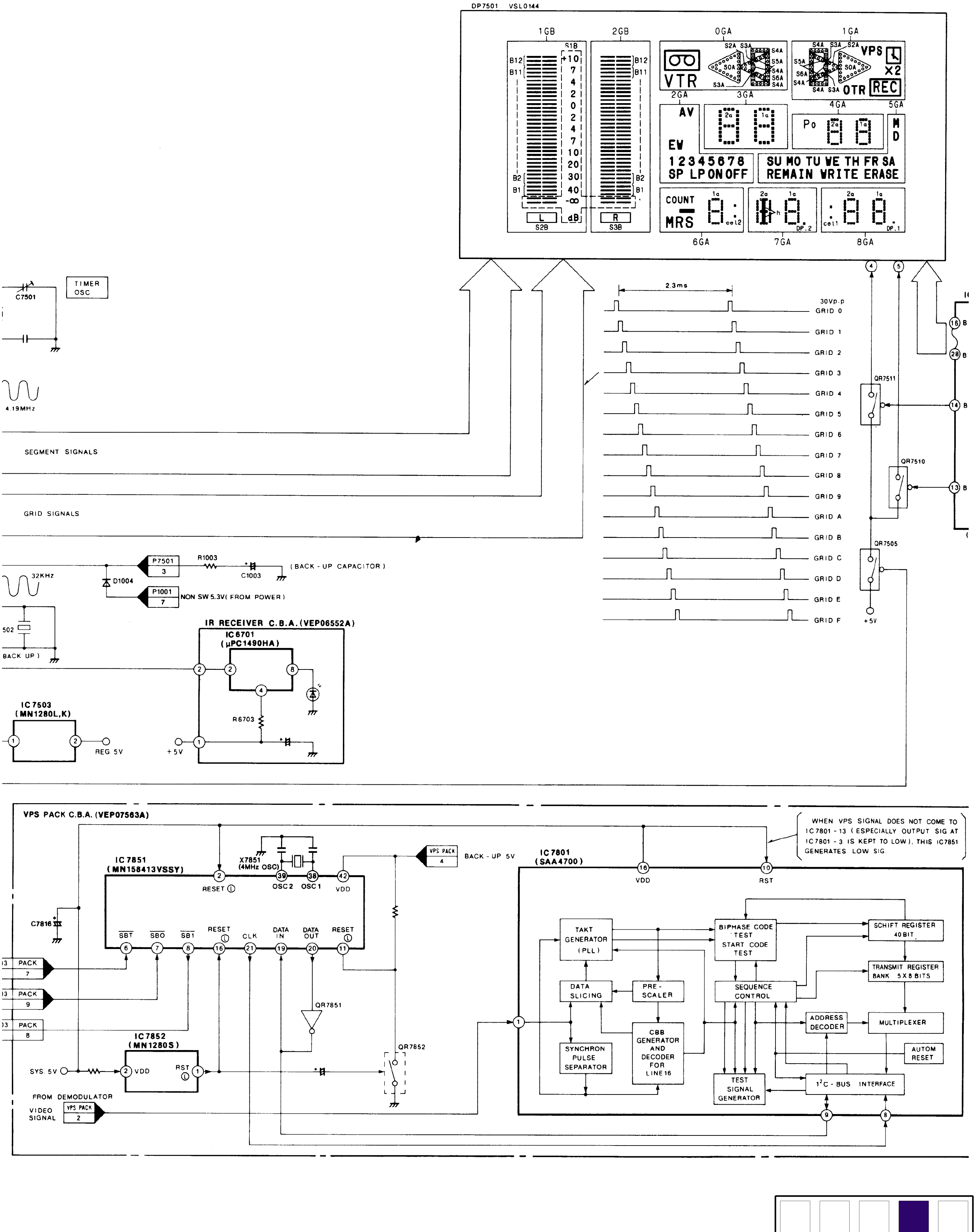
MODE	REV			X 2	PLAY	SLOW					STILL	
SPEED	X 9	X 7	X 5	X 2	1	1/5	1/7	1/10	1/20	1/30		
SHUTTLE 2	2.0	2.5	2.5	2.0	2.0	2.5	2.5	2.0	2.0	2.5	2.5	3.2
SHUTTLE 1	0	0	0.6	0.6	3.1	3.1	2.4	2.4	3.7	3.7	4.4	4.4

MODE	SLOW					PLAY	X 2	CUE				
SPEED	1/30	1/20	1/10	1/7	1/5	1	X 2	X 5	X 7	X 9		
SHUTTLE 2	3.2	5.0	5.0	3.2	3.2	5.0	5.0	3.2	3.2	5.0		
SHUTTLE 1	3.7	3.7	2.4	2.4	3.1	3.1	0.6	0.6	0	0		

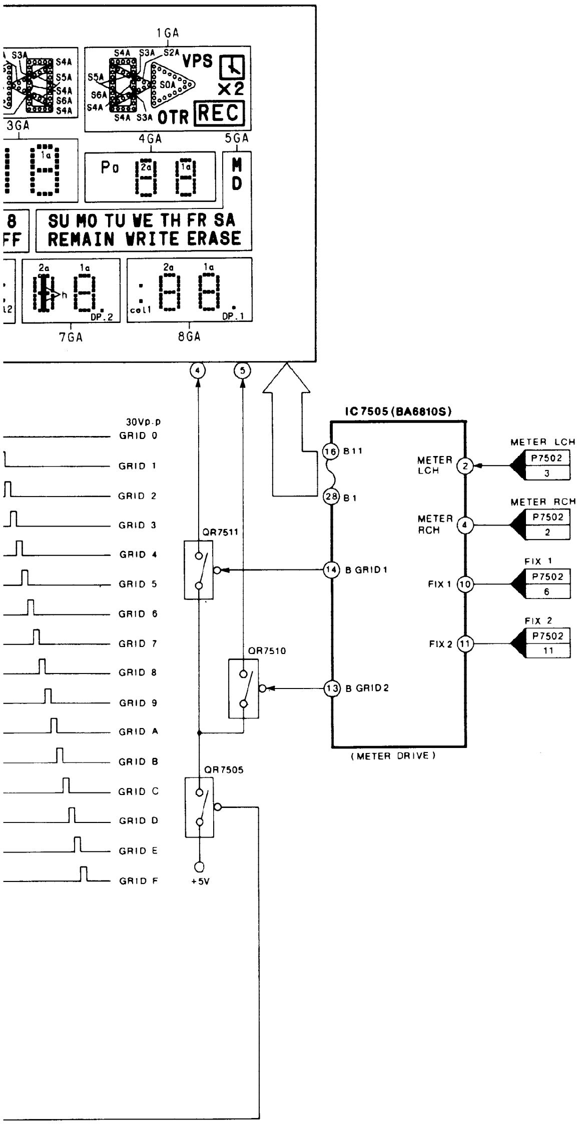
IC6005 PIN NO / MODE	IC 6005 14	IC 6005 15	IC 6005 16	MOTOR DIRECTION
REV	L	L	H	FWD
SWITCH OVER TO FF / REW	L	H	L	RVS
RVS SLOW	H	L	H	FWD
REWIND	L	H	H	RVS
BREAK	H	H	L	STOP

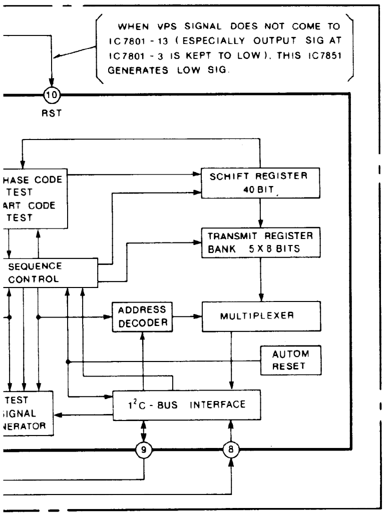

IC6001 (MN188166VDU)
UNREG 14V
QR6022
QR6021
RESET ON
CUE/REV/ FF/REW: ON
+5V
Q6006, Q6007
QR6013
REG 5V
73 VDD
83 SOLENOID ON Ⓛ
68 TAKE UP PHOTO
Q6006
QR6014
BUFFER
AMP
6 SENSOR LED
67 SUPPLY PHOTO
27 H. SW(CYLINDER LOCK)
RESET PULSE
64 DEW Ⓗ
66 SHUTTLE 1
65 SHUTTLE 2
FOR MAKING INITIAL CONDITION OF IC6001
IC6002 (MN1280R)
(RESET IC)
+5V
16 RESET
69 CASSETTE SW
REG 5V
QR6018
75 JOG/REEL SELECT
IC6004 (μPC339C)
V ref
25 JOG2: REEL(S)
26 JOG1: REEL(T)
+B
28 CTL: FG
29 CTL
39 PREROLL OUT
IC6006 (LM393PS)
Q6014
QR6020
+5V
30 EXT CTL
77 PLAY ON Ⓛ
24 CTL/FG SELECT
40 PRE ROLL(H): PLAY POS
41 S. TAB: STOP 2 POS
42 PAL/NTSC: STOP POS
59 SELECT
43 V DETECT: ELECT POS
76 RVS LED
74 FWD LED
58 SUB MOTOR FWD: ON
56 V. REF 1 READ (L)
55 V. REF 2 WRITE (H)
57 TAPE END Ⓗ
IC6007 (MC14519BF)
QR6019
8MHz
X6001
OSC 1 32
OSC 2 31
AUDIO MODE SELECT Ⓗ 3
FM MUTE Ⓗ 14
AUDIO EE Ⓗ 8
NORMAL AUDIO MUTE Ⓗ 12
VIDEO E-E 7
D-REC Ⓗ 17
D-AUDIO REC Ⓗ 18
AUDIO DUB Ⓗ 80
INSERT Ⓗ 79
SERVO SERIAL CLOCK 48
SERVO SERIAL DATA IN 49
SERVO SERIAL DATA OUT 50
TIMER SERIAL CLOCK 52
SERIAL DATA IN 53
SERIAL DATA OUT 54
LINE INPUT 4
REVIEW SW 63
REVⒽ/STOPⓂ/FWDⓁ 1
TRON: MOTOR V 10
SRON: X7 Ⓗ 9
CAP ON/OFF 13
SLOW/STILL/STOP 84
CUE/REV/FF/REW Ⓛ 2
COS 47
CIS 46
HC 45
CCD 44
REC Ⓗ 81
F. ERASE Ⓗ 21
FLYING ERASE Ⓗ 20
Q6015
QR6006
QR6005
QR6016
QR6017
Q6017
QR6024
QR6004
Q6004
Q6002
Q6003
QR6003
+12V
AUDIO DUB Ⓗ
AUDIO MODE SELECT Ⓗ
FM MUTE Ⓗ
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓗ
VIDEO E-E Ⓛ
D. REC Ⓗ
D. AUDIO REC Ⓗ
AUDIO DUB LED Ⓛ
INSERT Ⓛ
SERIAL CLOCK
SERIAL DATA
P7402 P7502 8
P7402 P7502 9
AV Ⓗ
P7402 10
TUNER Ⓛ
P6001 10
REV SW
REVⒽ/STOPⓂ/FWDⓁ
MOTOR VM DOWN
CAP QUICK Ⓗ
CAP ON/OFF
SLOW/STILL/STOP Ⓛ
CUE/REV
COS
CIS
HC
CCD
REC 12V
S. TAB Ⓛ
F. ERASE 12V
FLYING ERASE Ⓗ


D DUB Ⓗ
D MODE
CT Ⓗ
MUTE Ⓗ
D EE Ⓗ
IAL
D MUTE Ⓗ
O E-E Ⓛ
EC Ⓗ
DIO REC Ⓗ
D DUB
Ⓛ
ERT Ⓛ
TO LUMINANCE & CHROMINANCE / AUDIO SECTION
AL CLOCK
ERIAL DATA
TO SERVO
02 P7502
8
02 P7502
9
V Ⓗ
TO LUMINANCE & CHROMINANCE
TUNER Ⓛ
REV SW
STOPⓂ/FWDⓁ
OR VM DOWN
QUICK Ⓗ
ON/OFF
/STILL/STOP Ⓛ
DE/REV
DS
S
C
CD
EC 12V
S. TAB Ⓛ
TO SERVO
ERASE 12V
TING ERASE Ⓗ
IC7501
(MN187125VHP)
CS
P7503
1
DATA
P7503
2
CLOCK
P7503
7
TO
TV DEMODU.
17 CS
14 CLOCK
OSC 1 3
OSC 2 2
C7501
X7501
TIMER
OSC
4.19MHz
SEG 0 63
SEG16 48
SEGMENT SIGNALS
A GRID F 46
A GRID O 38
GRID SIGNALS
VDD 1
32KHz
X0 6
X7502
X1 5
(FOR BACK UP)
IRQ 15
22 SERIAL CLOCK
23 SERIAL DATA IN
24 SERIAL DATA OUT
(TUNER DATA MEMORY IC)
VL 4
C3 1
C2 16
C1 15
OUT 3
U 5
20 P12
8 P26
27 P00
26 P01
TP7518
TP7519
REG 6V
(RESET IC)
IC7504
(MN1280S)
QR7501
11 PCLR Ⓗ
IC7502 (MN12C261D)
16 POWER FAILIAR DET
IC7503
(MN1280L,K)
RESET Ⓛ 21
METER ON Ⓛ 47
VPS PACK C.B.A.
C7816
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61
STOP
EJECT
REW
FF
PAUSE/
STILL
REC
A.DUB
PLAY
INSERT
COUNT
MEMORY
COUNT
RESET
TAPE
REMAIN
TIMER
REC
LP/SP
(TRK UP)
CH UP
(TRK DN)
CH DN
CLOCK
COUNT
SET
UP
SET
DN
CLOCK
PRO/
CHACK
NEXT
ON UP
ON DN
OFF UP
OFF DN
PRESET
FINE/NOR
AFC/
VPS
CLEAR
DOOR
PANEL
P40
P41
P42
P43
P44
63 P50
62 P51
61 P52
60 P53
59 P54
58 P55
57 P56
56 P57
55 P60
54 P61
33 P44
34 P43
35 P42
36 P41
37 P40
CPU CLOCK 25
P7503 11
PACK 7
CPU DATA 2 27
P7503 10
PACK 9
CPU DATA 1 26
P7503 9
PACK 8
SYS 5V
FROM DEMODUL
VIDEO
SIGNAL
VPS PACK
2



DP7501 VSL0144
1GB
2GB
0GA
1GA
2GA
3GA
4GA
5GA
6GA
7GA
8GA
S1B
S2B
S3B
B12
B11
B2
B1
+10
7
4
2
0
2
4
7
10
20
30
40
-∞
L
R
dB
VTR
VPS
x2
OTR
REC
AV
EW
Po
M
D
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
S0A
S2A
S3A
S4A
S5A
S6A
col1
col2
DP.1
DP.2
TIMER OSC
C7501
4.19MHz
SEGMENT SIGNALS
GRID SIGNALS
2.3ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
QR7511
QR7510
QR7505
+5V
P7501 3
R1003
C1003
(BACK-UP CAPACITOR)
32KHz
D1004
P1001 7
NON SW 5.3V (FROM POWER)
502
BACK UP)
IR RECEIVER C.B.A. (VEP06552A)
IC6701 (µPC1490HA)
R6703
+5V
IC7503 (MN1280L,K)
REG 5V
VPS PACK C.B.A. (VEP07563A)
WHEN VPS SIGNAL DOES NOT COME TO IC7801-13 (ESPECIALLY OUTPUT SIG AT IC7801-3 IS KEPT TO LOW), THIS IC7851 GENERATES LOW SIG.
IC7851 (MN158413VSSY)
X7851 (4MHz OSC)
RESET
OSC2
OSC1
VDD
SBT
SBO
SB1
RESET
CLK
DATA IN
DATA OUT
RESET
C7816
VPS PACK 4
BACK-UP 5V
IC7801 (SAA4700)
VDD
RST
PACK 7
PACK 9
PACK 8
QR7851
QR7852
IC7852 (MN1280S)
SYS 5V
VDD
RST
FROM DEMODULATOR
VIDEO SIGNAL
VPS PACK 2
TAKT GENERATOR (PLL)
DATA SLICING
PRE-SCALER
SYNCHRON PULSE SEPARATOR
CBB GENERATOR AND DECODER FOR LINE16
BIPHASE CODE TEST START CODE TEST
SEQUENCE CONTROL
TEST SIGNAL GENERATOR
SCHIFT REGISTER 40BIT
TRANSMIT REGISTER BANK 5X8 BITS
ADDRESS DECODER
MULTIPLEXER
AUTOM RESET
I²C-BUS INTERFACE


1GA
S3A
S4A
S5A
S6A
S2A
S0A
VPS
X2
OTR
REC
3GA
4GA
5GA
Po
M
D
8
FF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
2a
1a
DP.2
col1
DP.1
7GA
8GA
4
5
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
QR7511
QR7510
QR7505
+5V
IC7505 (BA6810S)
16 B11
28 B1
14 B GRID 1
13 B GRID 2
METER LCH 2
METER RCH 4
FIX 1 10
FIX 2 11
METER LCH
P7502 3
METER RCH
P7502 2
FIX 1
P7502 6
FIX 2
P7502 11
(METER DRIVE)

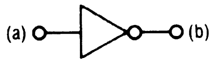


WHEN VPS SIGNAL DOES NOT COME TO IC7801 - 13 (ESPECIALLY OUTPUT SIG AT IC7801 - 3 IS KEPT TO LOW). THIS IC7851 GENERATES LOW SIG.

10
RST
HASE CODE TEST
ART CODE TEST
SCHIFT REGISTER 40 BIT
TRANSMIT REGISTER BANK 5 X 8 BITS
SEQUENCE CONTROL
ADDRESS DECODER
MULTIPLEXER
AUTOM RESET
TEST
SIGNAL
ERATOR
I²C - BUS INTERFACE
9
8

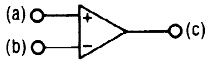
SYMBOL	TRUTH VALUE TABLE

INVERTER



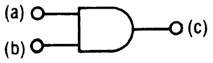
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



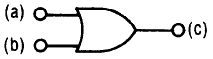
IN	(a) (b)	(a)>(b)	(a)<(b)
OUT	(c)	H	L

AND CIRCUIT



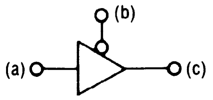
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

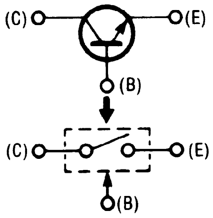
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

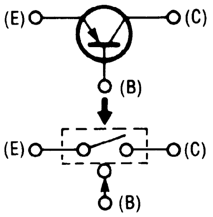
※ High Impedance

TR. SW (NPN TYPE)



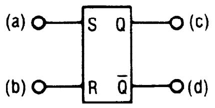
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

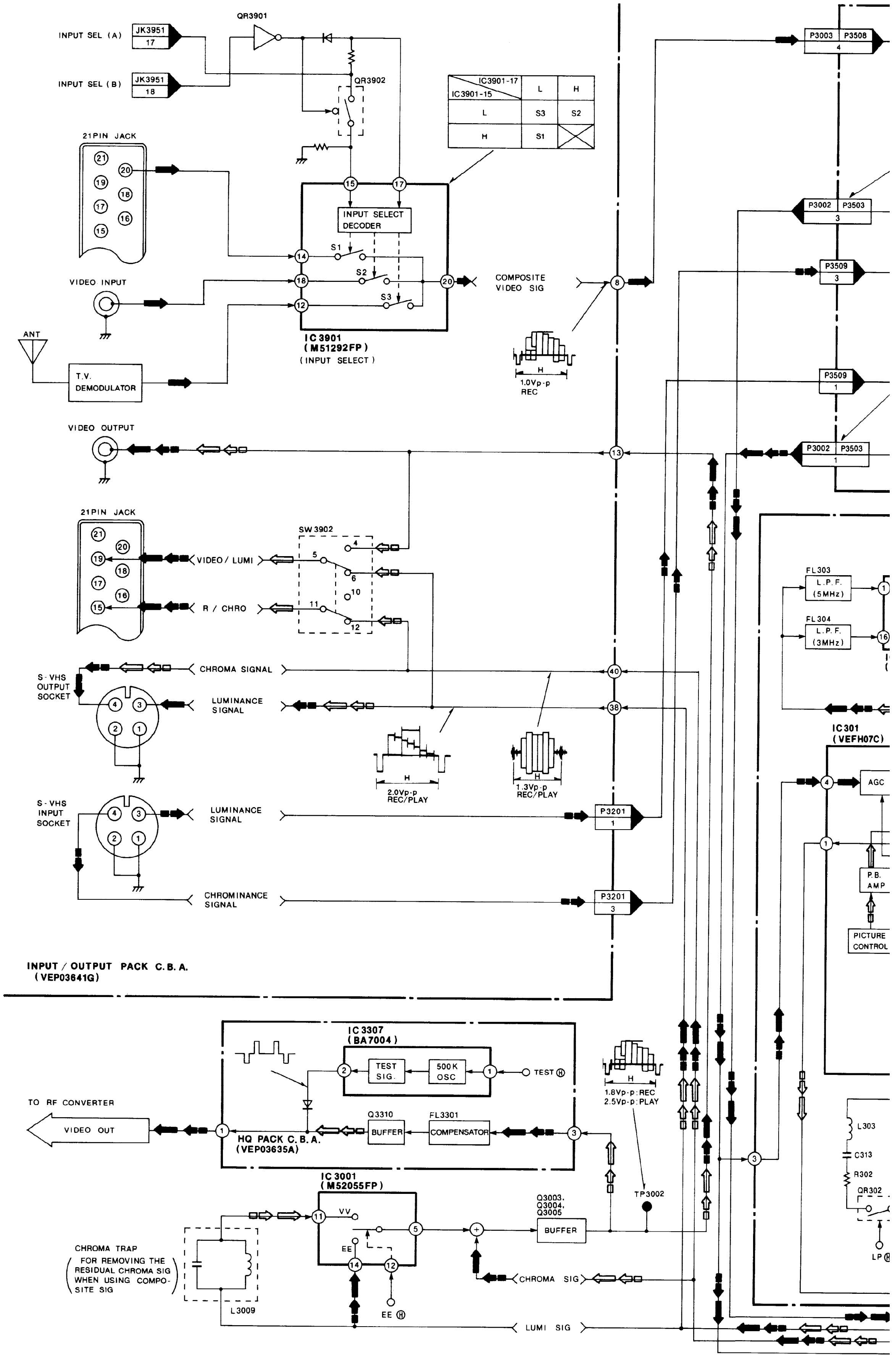
R-S TYPE FLIP-FLOP



IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reverced.

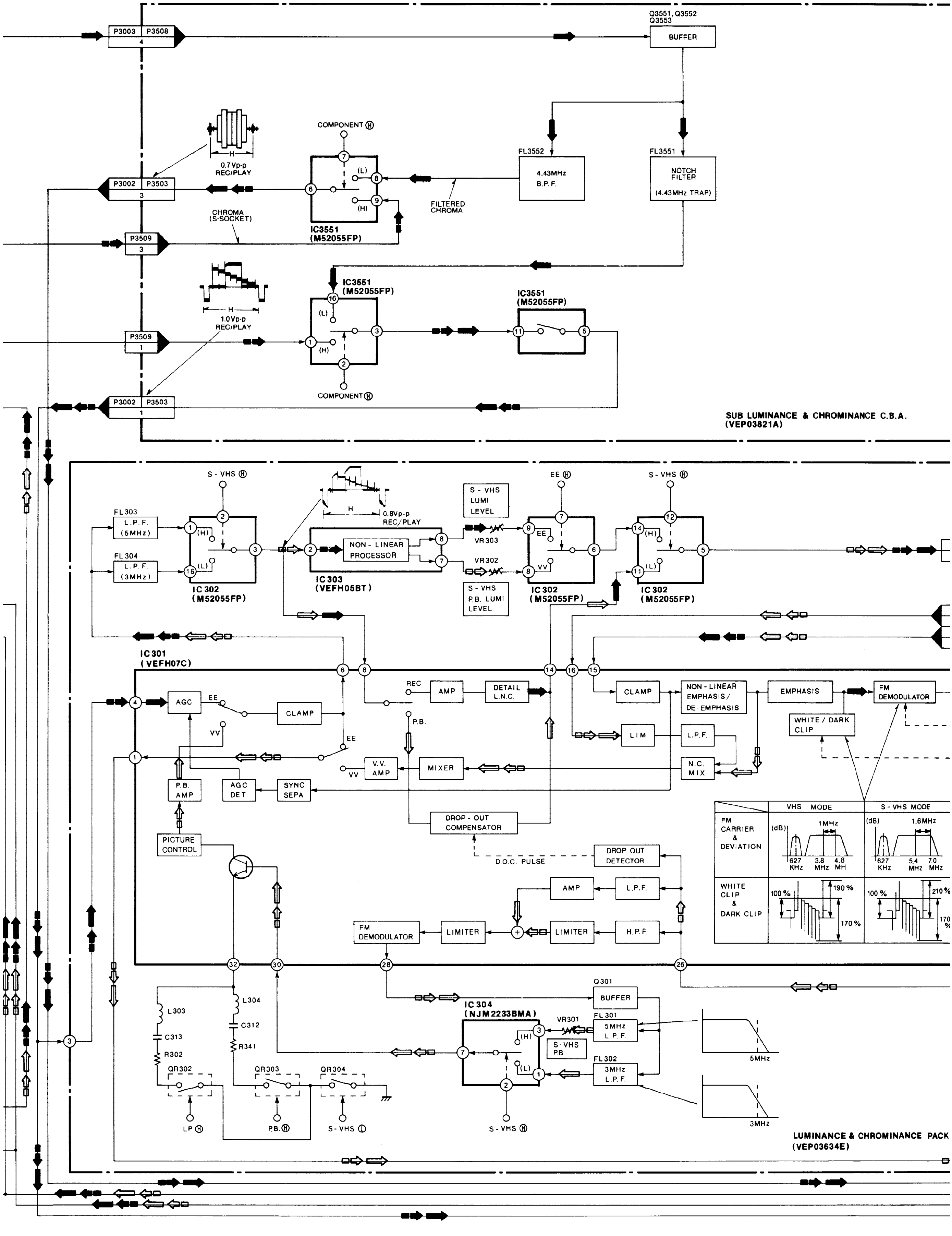
3-2. LUMINANCE & CHROMINANCE BLOCK DIAGRAM


INPUT SEL (A)
JK3951 17
INPUT SEL (B)
JK3951 18
QR3901
QR3902
IC3901-17
IC3901-15
L
H
S3
S2
S1
21PIN JACK
21 20 19 18 17 16 15
INPUT SELECT DECODER
S1
S2
S3
14
18
12
15
17
20
COMPOSITE VIDEO SIG
VIDEO INPUT
ANT
T.V. DEMODULATOR
IC3901 (M51292FP) (INPUT SELECT)
1.0Vp-p REC
H
8
VIDEO OUTPUT
13
21PIN JACK
SW3902
VIDEO / LUMI
R / CHRO
4 5 6 10 11 12
CHROMA SIGNAL
40
S-VHS OUTPUT SOCKET
LUMINANCE SIGNAL
38
2.0Vp-p REC/PLAY
1.3Vp-p REC/PLAY
S-VHS INPUT SOCKET
LUMINANCE SIGNAL
P3201 1
CHROMINANCE SIGNAL
P3201 3
INPUT / OUTPUT PACK C.B.A. (VEP03641G)
P3003 P3508 4
P3002 P3503 3
P3509 3
P3509 1
P3002 P3503 1
FL303 L.P.F. (5MHz)
FL304 L.P.F. (3MHz)
IC301 (VEFH07C)
AGC
P.B. AMP
PICTURE CONTROL
IC3307 (BA7004)
TEST SIG.
500K OSC
TEST Ⓗ
TO RF CONVERTER
VIDEO OUT
Q3310 BUFFER
FL3301 COMPENSATOR
HQ PACK C.B.A. (VEP03635A)
1.8Vp-p: REC
2.5Vp-p: PLAY
TP3002
Q3003, Q3004, Q3005 BUFFER
IC3001 (M52055FP)
VV
EE
11 5 14 12
EE Ⓗ
CHROMA SIG
LUMI SIG
CHROMA TRAP (FOR REMOVING THE RESIDUAL CHROMA SIG WHEN USING COMPOSITE SIG)
L3009
L303
C313
R302
QR302
LP Ⓗ

GRAM

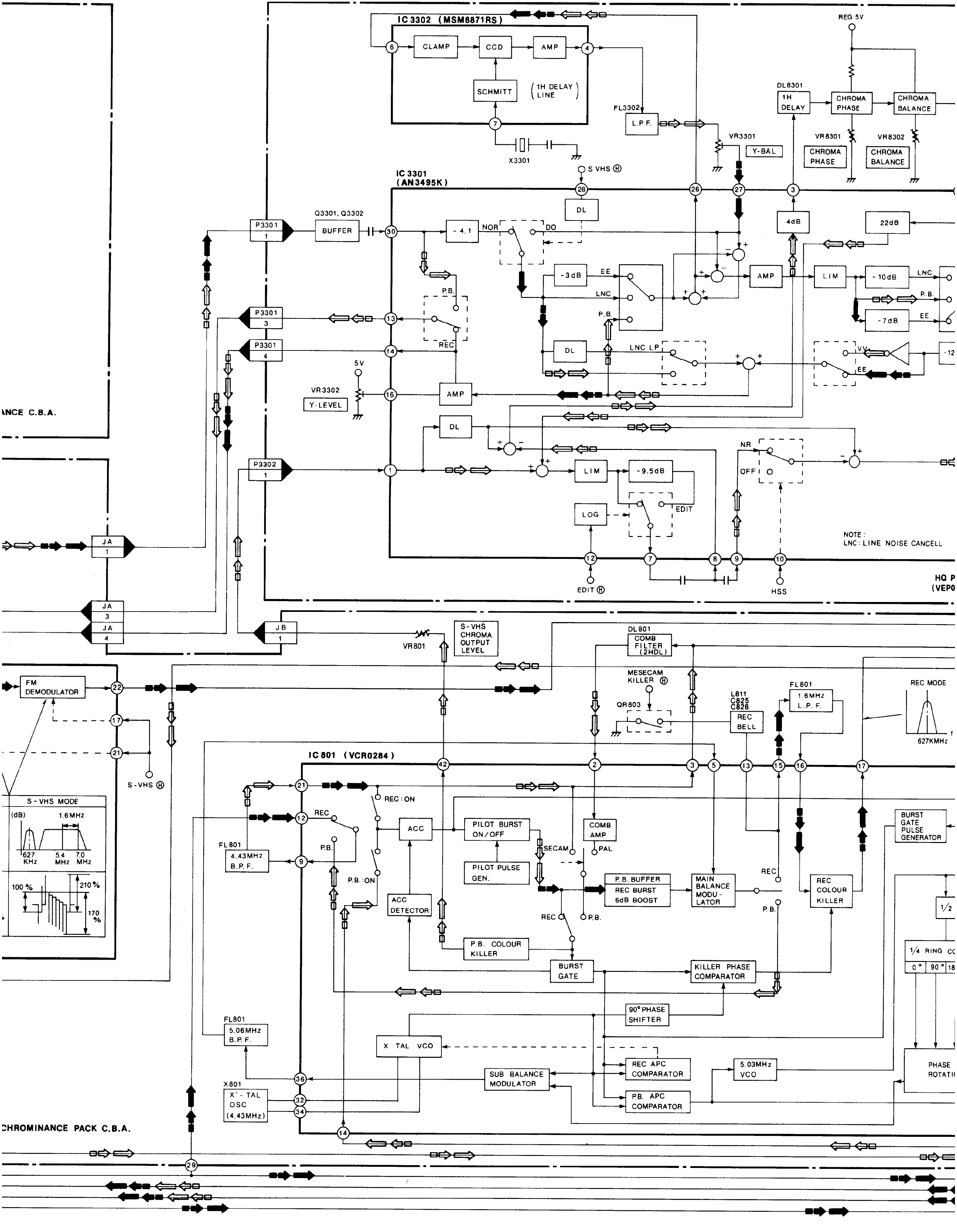
MAIN SIGNAL PATH IN REC MODE (VHS)

MAIN SIGNAL PATH IN

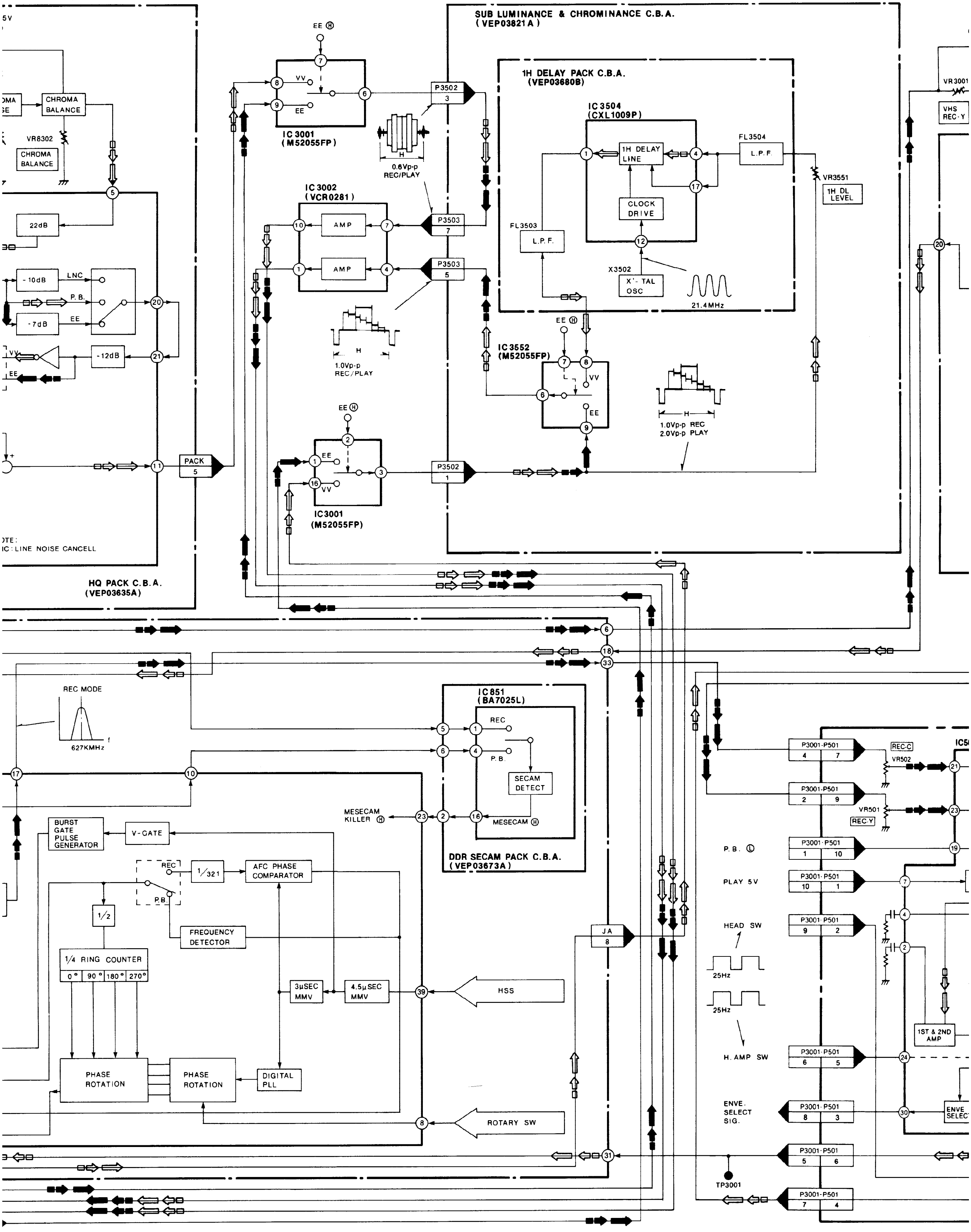


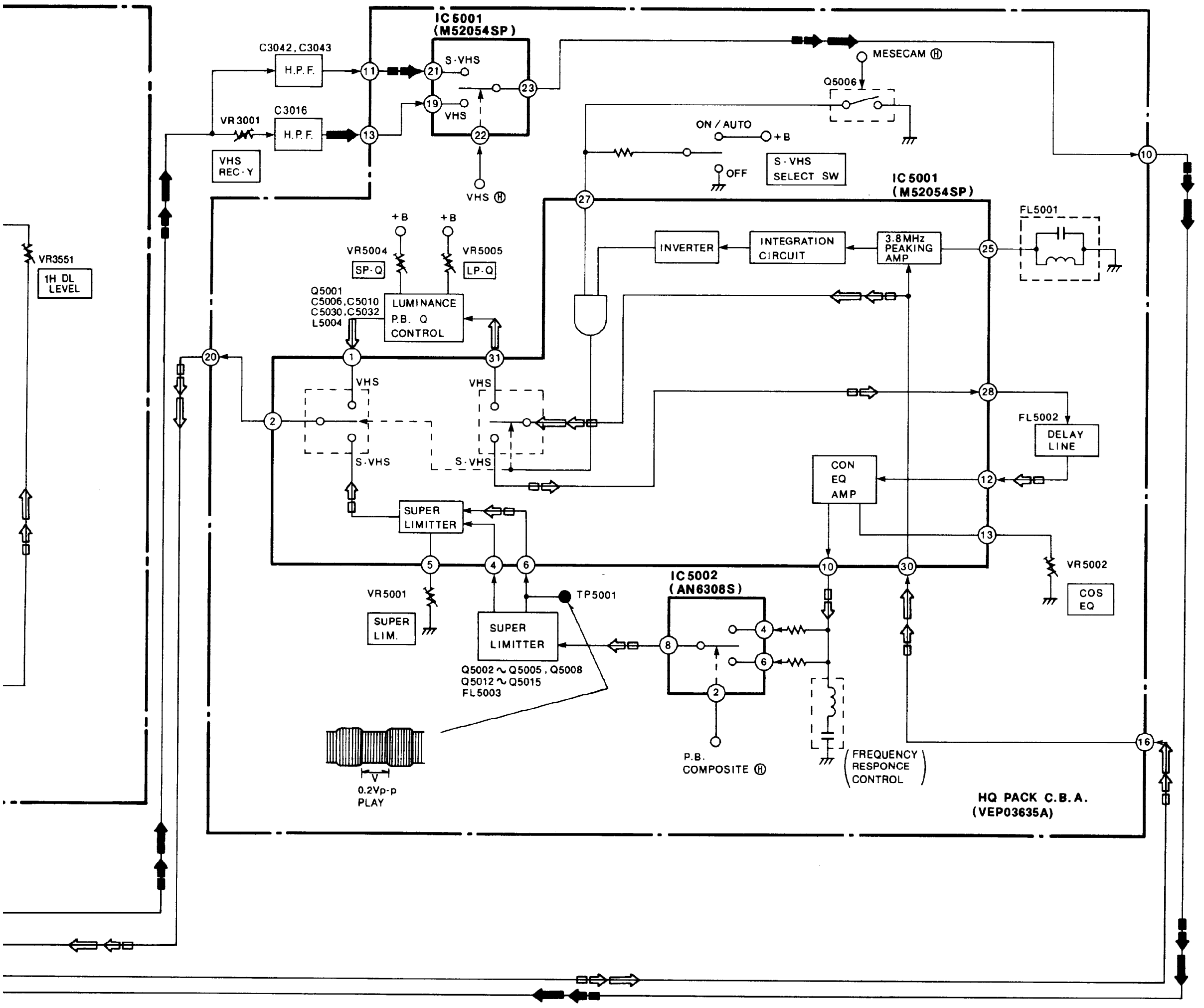
P3003
P3508
4
Q3551, Q3552
Q3553
BUFFER
0.7Vp-p
REC/PLAY
H
COMPONENT Ⓗ
(L)
(H)
P3002
P3503
3
FL3552
4.43MHz
B.P.F.
FL3551
NOTCH FILTER
(4.43MHz TRAP)
FILTERED CHROMA
CHROMA
(S-SOCKET)
P3509
IC3551
(M52055FP)
1.0Vp-p
REC/PLAY
1
COMPONENT Ⓗ
SUB LUMINANCE & CHROMINANCE C.B.A.
(VEP03821A)
S - VHS Ⓗ
FL 303
L. P. F.
(5MHz)
FL 304
L. P. F.
(3MHz)
IC 302
(M52055FP)
0.8Vp-p
REC/PLAY
NON - LINEAR
PROCESSOR
IC 303
(VEFH05BT)
S - VHS
LUMI
LEVEL
VR303
VR302
S - VHS
P.B. LUMI
LEVEL
EE Ⓗ
EE
VV
IC301
(VEFH07C)
AGC
CLAMP
REC
AMP
DETAIL
L.N.C.
P.B.
NON - LINEAR
EMPHASIS /
DE - EMPHASIS
EMPHASIS
FM
DEMODULATOR
WHITE / DARK
CLIP
LIM
L.P.F.
N.C.
MIX
V.V.
AMP
MIXER
P.B.
AMP
AGC
DET
SYNC
SEPA
DROP - OUT
COMPENSATOR
PICTURE
CONTROL
D.O.C. PULSE
DROP OUT
DETECTOR
AMP
L.P.F.
FM
DEMODULATOR
LIMITER
LIMITER
H.P.F.
VHS MODE
S - VHS MODE
FM
CARRIER
&
DEVIATION
(dB)
1MHz
627 KHz
3.8 MHz
4.8 MH
1.6MHz
627 KHz
5.4 MHz
7.0 MHz
WHITE
CLIP
&
DARK CLIP
100 %
190 %
170 %
100 %
210 %
170 %
Q301
BUFFER
IC 304
(NJM2233BMA)
VR301
S-VHS
P.B
FL 301
5MHz
L. P. F.
FL 302
3MHz
L. P. F.
5MHz
3MHz
L303
C313
R302
L304
C312
R341
QR302
QR303
QR304
LP Ⓗ
P.B. Ⓗ
S - VHS Ⓛ
S - VHS Ⓗ
LUMINANCE & CHROMINANCE PACK
(VEP03634E)

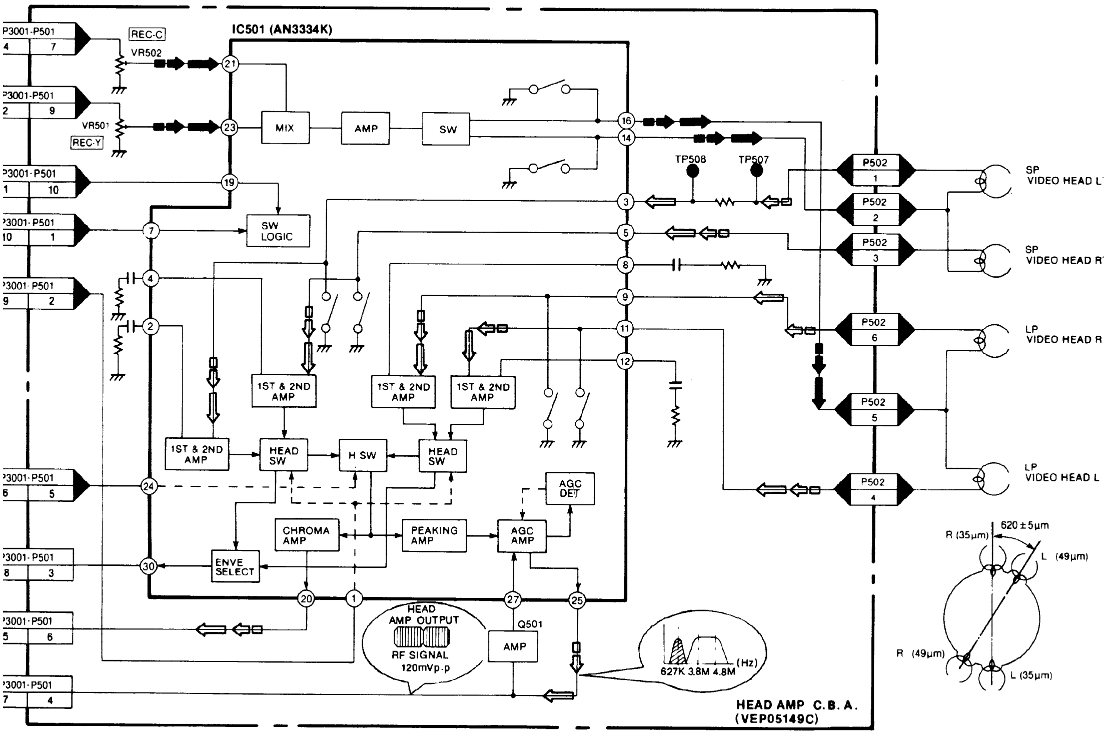
PATH IN PLAYBACK MODE (VHS) MAIN SIGNAL PATH IN REC MODE (S-VHS)


IC 3302 (MSM6871RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
X3301
FL3302
L.P.F.
VR3301
Y-BAL
REG 5V
DL8301
1H DELAY
CHROMA PHASE
CHROMA BALANCE
VR8301
VR8302
S VHS Ⓗ
IC 3301 (AN3495K)
Q3301, Q3302
BUFFER
P3301
P3302
-4.1
NOR
DO
DL
4dB
22dB
-3dB
EE
LNC
P.B.
REC
AMP
LIM
-10dB
-7dB
LNC LP
VV
5V
VR3302
Y-LEVEL
NR
OFF
-9.5dB
LOG
EDIT
EDIT Ⓗ
HSS
NOTE: LNC: LINE NOISE CANCELL
HQ P (VEPO
ANCE C.B.A.
JA
JB
VR801
S-VHS CHROMA OUTPUT LEVEL
DL801
COMB FILTER (2HDL)
MESECAM KILLER Ⓗ
QR803
L811 C825 C826
REC BELL
FL801
1.6MHz L.P.F.
REC MODE
627KMHz
FM DEMODULATOR
S-VHS Ⓗ
S-VHS MODE
(dB)
1.6MHz
627 KHz
5.4 MHz
7.0 MHz
100 %
210 %
170 %
IC 801 (VCR0284)
REC: ON
P.B.: ON
ACC
PILOT BURST ON/OFF
PILOT PULSE GEN.
COMB AMP
SECAM
PAL
4.43MHz B.P.F.
ACC DETECTOR
P.B. BUFFER REC BURST 6dB BOOST
MAIN BALANCE MODULATOR
REC COLOUR KILLER
BURST GATE PULSE GENERATOR
P.B. COLOUR KILLER
BURST GATE
KILLER PHASE COMPARATOR
90° PHASE SHIFTER
5.06MHz B.P.F.
X TAL VCO
SUB BALANCE MODULATOR
REC APC COMPARATOR
P.B. APC COMPARATOR
5.03MHz VCO
X801
X'-TAL OSC (4.43MHz)
1/2
1/4 RING CO
0°
90°
PHASE ROTATI
CHROMINANCE PACK C.B.A.

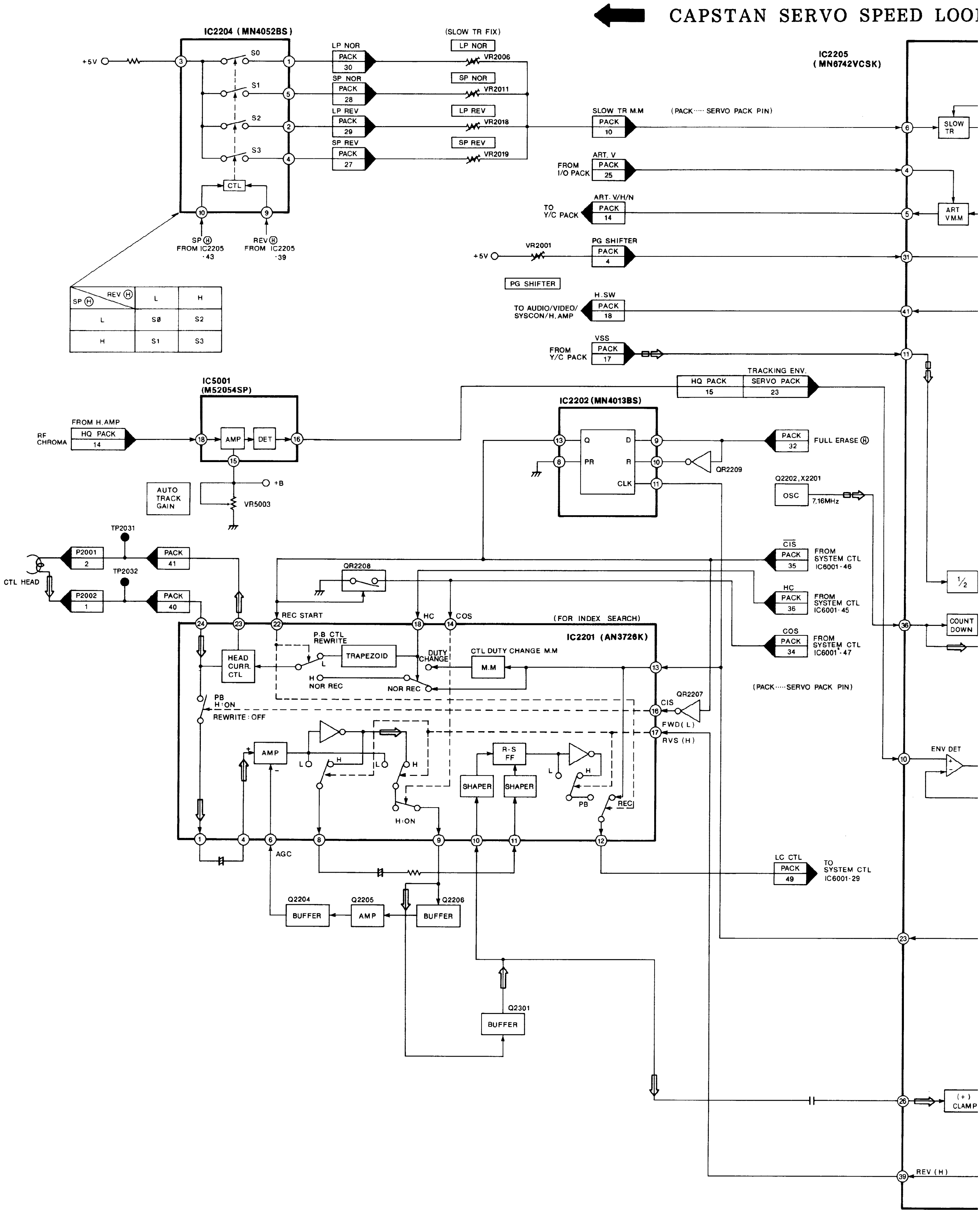
HS) MAIN SIGNAL PATH IN PLAYBACK MODE (S-VHS)


5V
OMA
SE
CHROMA BALANCE
VR8302
CHROMA BALANCE
22dB
-10dB
LNC
P.B.
EE
-7dB
VV
-12dB
EE
OTE:
IC: LINE NOISE CANCELL
HQ PACK C.B.A.
(VEP03635A)
PACK
5
EE Ⓗ
VV
EE
IC 3001
(M52055FP)
P3502
3
H
0.6Vp-p
REC/PLAY
IC 3002
(VCR0281)
AMP
AMP
P3503
7
P3503
5
H
1.0Vp-p
REC/PLAY
EE Ⓗ
EE
VV
IC3001
(M52055FP)
P3502
1
SUB LUMINANCE & CHROMINANCE C.B.A.
(VEP03821A)
1H DELAY PACK C.B.A.
(VEP03680B)
IC 3504
(CXL1009P)
1H DELAY LINE
CLOCK DRIVE
FL3504
L.P.F.
FL3503
L.P.F.
X3502
X'-TAL OSC
21.4MHz
VR3551
1H DL LEVEL
EE Ⓗ
IC 3552
(M52055FP)
VV
EE
H
1.0Vp-p REC
2.0Vp-p PLAY
VR3001
VHS REC-Y
REC MODE
627KMHz
f
IC851
(BA7025L)
REC
P.B
SECAM DETECT
MESECAM Ⓗ
MESECAM KILLER Ⓗ
DDR SECAM PACK C.B.A.
(VEP03673A)
BURST GATE PULSE GENERATOR
V-GATE
REC
P.B
1/321
AFC PHASE COMPARATOR
1/2
FREQUENCY DETECTOR
1/4 RING COUNTER
0°
90°
180°
270°
3μSEC MMV
4.5μSEC MMV
HSS
PHASE ROTATION
PHASE ROTATION
DIGITAL PLL
ROTARY SW
JA
8
P3001-P501
REC-C
VR502
IC5
REC-Y
VR501
P.B. Ⓛ
PLAY 5V
HEAD SW
25Hz
25Hz
H. AMP SW
1ST & 2ND AMP
ENVE. SELECT SIG.
ENVE SELEC
TP3001


IC5001
(M52054SP)
C3042, C3043
H.P.F.
S-VHS
VHS
MESECAM Ⓗ
Q5006
C3016
VR3001
H.P.F.
VHS REC-Y
ON / AUTO
+B
OFF
S-VHS SELECT SW
VHS Ⓗ
IC5001
(M52054SP)
VR3551
1H DL LEVEL
+B
+B
VR5004
VR5005
SP-Q
LP-Q
FL5001
INVERTER
INTEGRATION CIRCUIT
3.8MHz PEAKING AMP
Q5001
C5006, C5010
C5030, C5032
L5004
LUMINANCE P.B. Q CONTROL
VHS
VHS
S-VHS
S-VHS
FL5002
DELAY LINE
CON EQ AMP
SUPER LIMITTER
VR5001
SUPER LIM.
TP5001
IC5002
(AN6308S)
VR5002
COS EQ
SUPER LIMITTER
Q5002 ~ Q5005, Q5008
Q5012 ~ Q5015
FL5003
P.B. COMPOSITE Ⓗ
FREQUENCY RESPONCE CONTROL
0.2Vp-p
PLAY
HQ PACK C.B.A.
(VEP03635A)

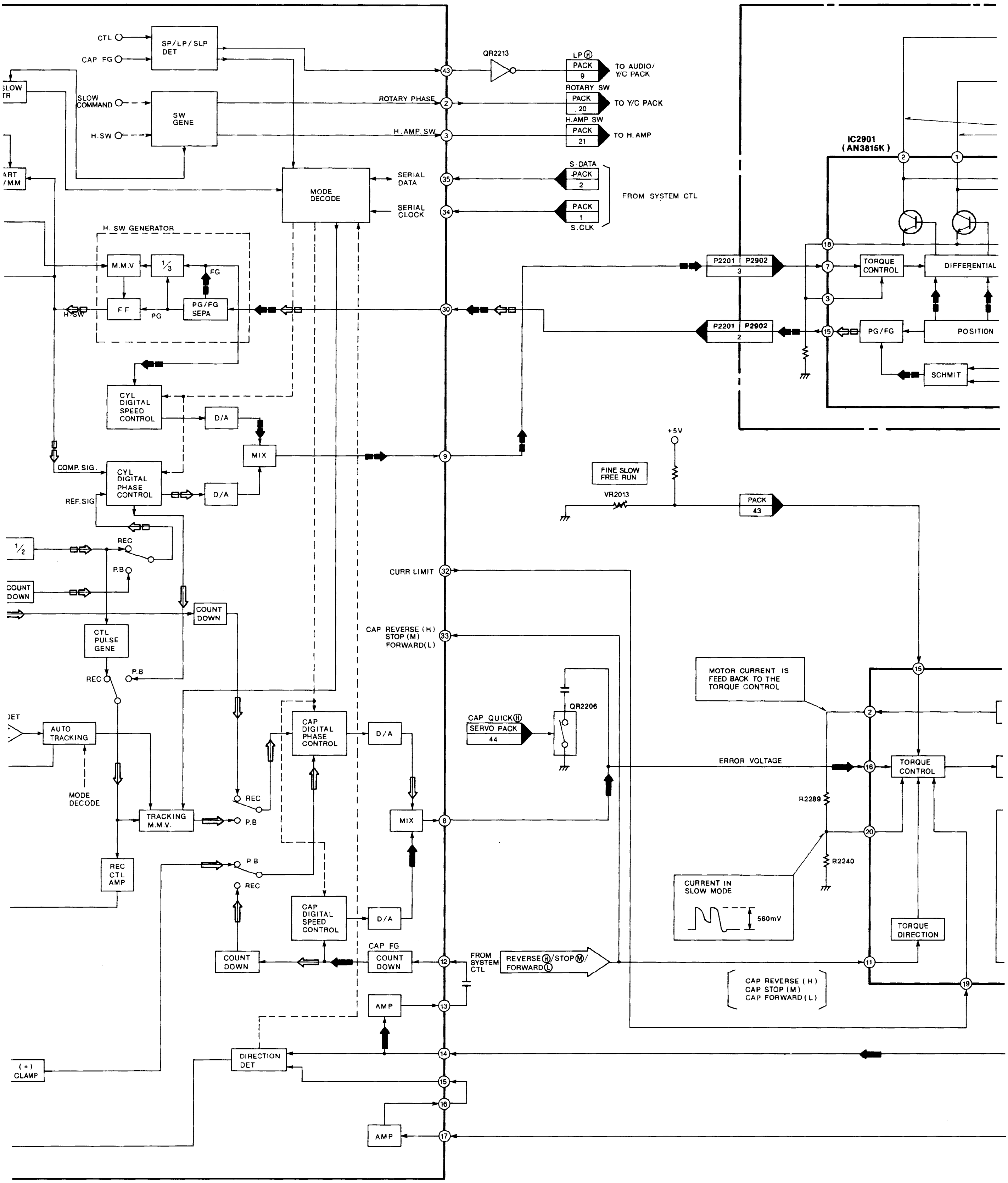

P3001-P501
4 7
REC-C
VR502
IC501 (AN3334K)
P3001-P501
2 9
VR501
REC-Y
MIX
AMP
SW
P3001-P501
1 10
TP508
TP507
P502 1
SP VIDEO HEAD L'
P502 2
P3001-P501
10 1
SW LOGIC
P502 3
SP VIDEO HEAD R'
P3001-P501
9 2
P502 6
LP VIDEO HEAD R
1ST & 2ND AMP
1ST & 2ND AMP
1ST & 2ND AMP
P502 5
1ST & 2ND AMP
HEAD SW
H SW
HEAD SW
P3001-P501
6 5
AGC DET
P502 4
LP VIDEO HEAD L
CHROMA AMP
PEAKING AMP
AGC AMP
620 ± 5μm
R (35μm)
L (49μm)
P3001-P501
8 3
ENVE SELECT
HEAD AMP OUTPUT
RF SIGNAL
120mVp-p
Q501
P3001-P501
5 6
AMP
R (49μm)
L (35μm)
P3001-P501
7 4
627K 3.8M 4.8M
(Hz)
HEAD AMP C.B.A.
(VEP05149C)

3-3. SERVO BLOCK DIAGRAM

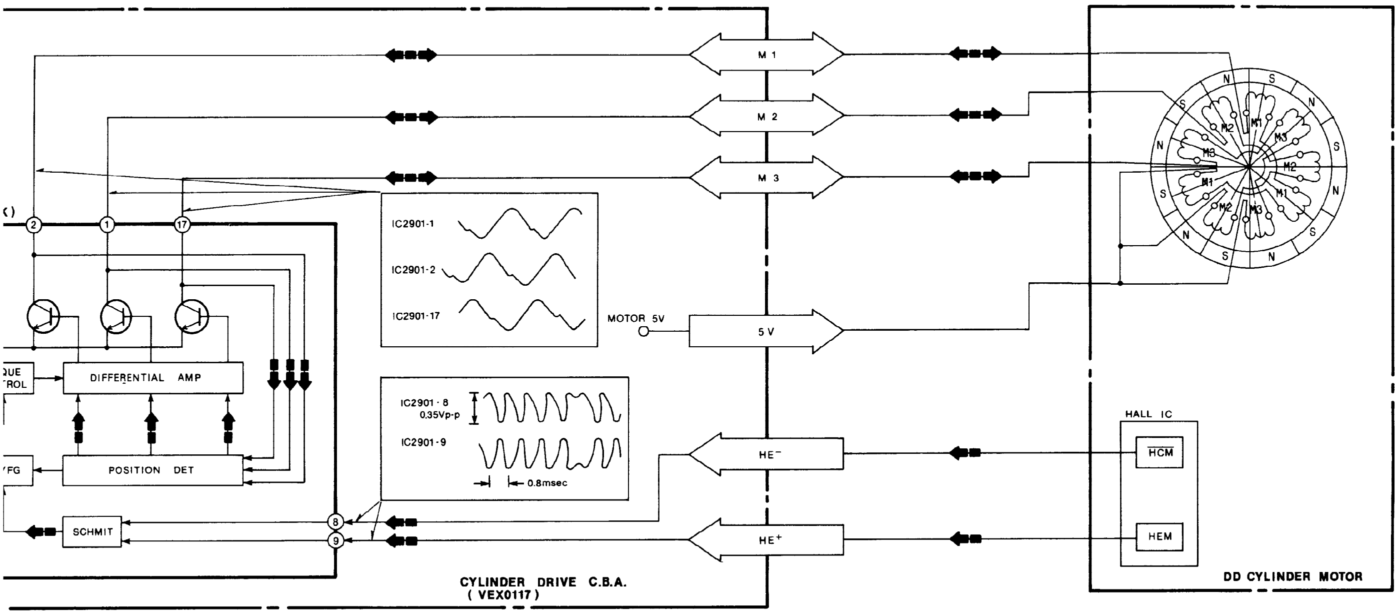

CAPSTAN SERVO SPEED LOO
IC2204 (MN4052BS)
+5V
S0
S1
S2
S3
CTL
SP Ⓗ FROM IC2205 ·43
REV Ⓗ FROM IC2205 ·39
LP NOR PACK 30
SP NOR PACK 28
LP REV PACK 29
SP REV PACK 27
(SLOW TR FIX)
LP NOR
VR2006
SP NOR
VR2011
LP REV
VR2018
SP REV
VR2019
IC2205 (MN6742VCSK)
SLOW TR M.M PACK 10
(PACK····· SERVO PACK PIN)
SLOW TR
ART. V PACK 25
FROM I/O PACK
ART. V/H/N PACK 14
TO Y/C PACK
ART V.M.M
+5V
VR2001
PG SHIFTER PACK 4
PG SHIFTER
H.SW PACK 18
TO AUDIO/VIDEO/ SYSCON/H.AMP
VSS PACK 17
FROM Y/C PACK
TRACKING ENV.
HQ PACK 15
SERVO PACK 23
IC5001 (M52054SP)
FROM H.AMP
RF CHROMA
HQ PACK 14
AMP
DET
+B
AUTO TRACK GAIN
VR5003
IC2202 (MN4013BS)
Q
D
PR
R
CLK
PACK 32
FULL ERASE Ⓗ
QR2209
Q2202, X2201
OSC
7.16MHz
½
TP2031
TP2032
P2001 2
P2002 1
CTL HEAD
PACK 41
PACK 40
QR2208
CIS PACK 35
FROM SYSTEM CTL IC6001·46
HC PACK 36
FROM SYSTEM CTL IC6001·45
COS PACK 34
FROM SYSTEM CTL IC6001·47
COUNT DOWN
REC START
HC
COS
(FOR INDEX SEARCH)
IC2201 (AN3726K)
P.B CTL REWRITE
TRAPEZOID
DUTY CHANGE
CTL DUTY CHANGE M.M
M.M
HEAD CURR. CTL
H
NOR REC
L
PB
H:ON
REWRITE : OFF
QR2207
CIS
FWD(L)
RVS (H)
(PACK·····SERVO PACK PIN)
AMP
R-S FF
SHAPER
SHAPER
H:ON
REC
ENV DET
AGC
LC CTL PACK 49
TO SYSTEM CTL IC6001-29
Q2204 BUFFER
Q2205 AMP
Q2206 BUFFER
Q2301 BUFFER
(+) CLAMP
REV (H)

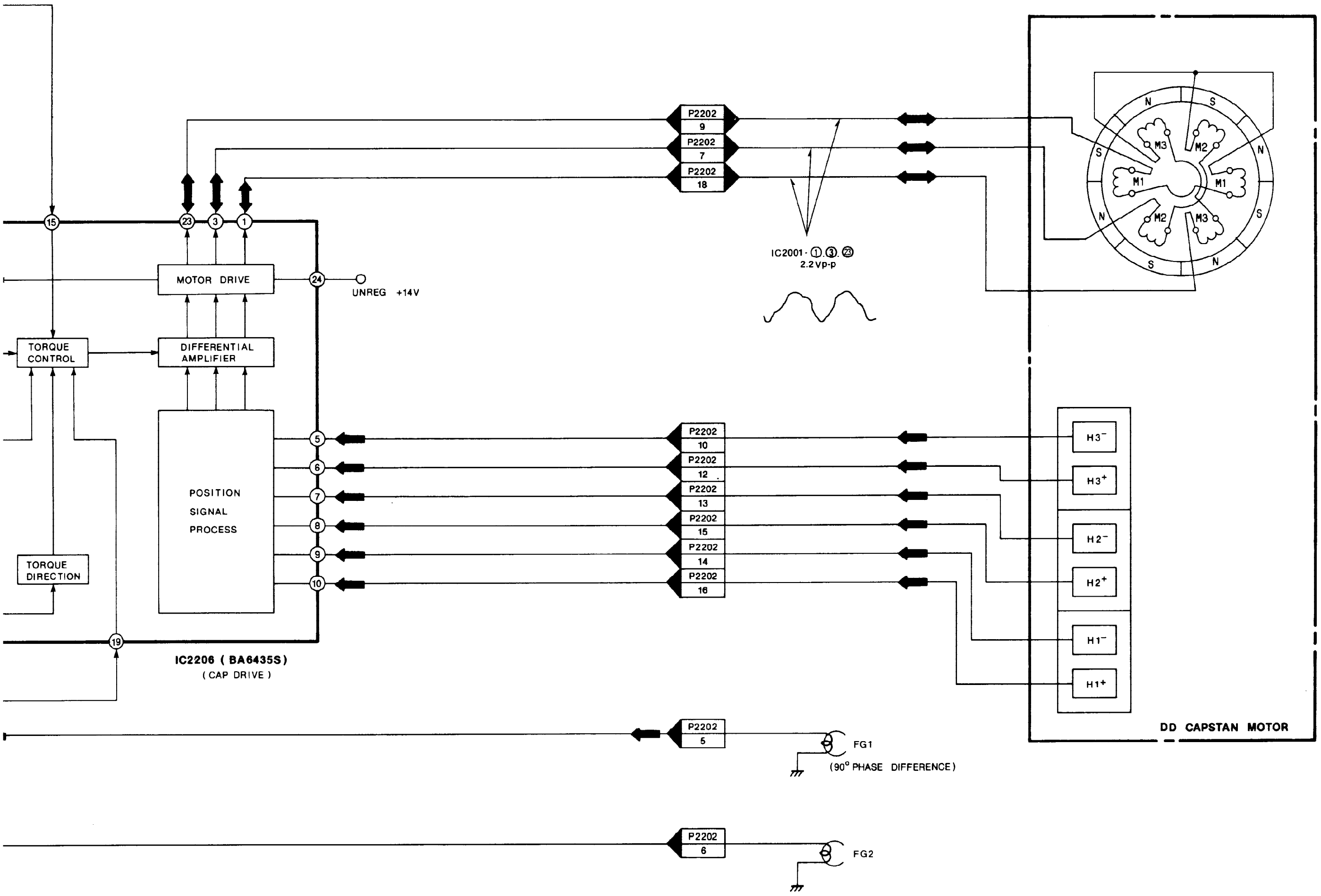
SP Ⓗ \ REV Ⓗ	L	H
L	S0	S2
H	S1	S3

OOP CAPSTAN SERVO PHASE LOOP CYLINDER SERVO SPEED LOOP

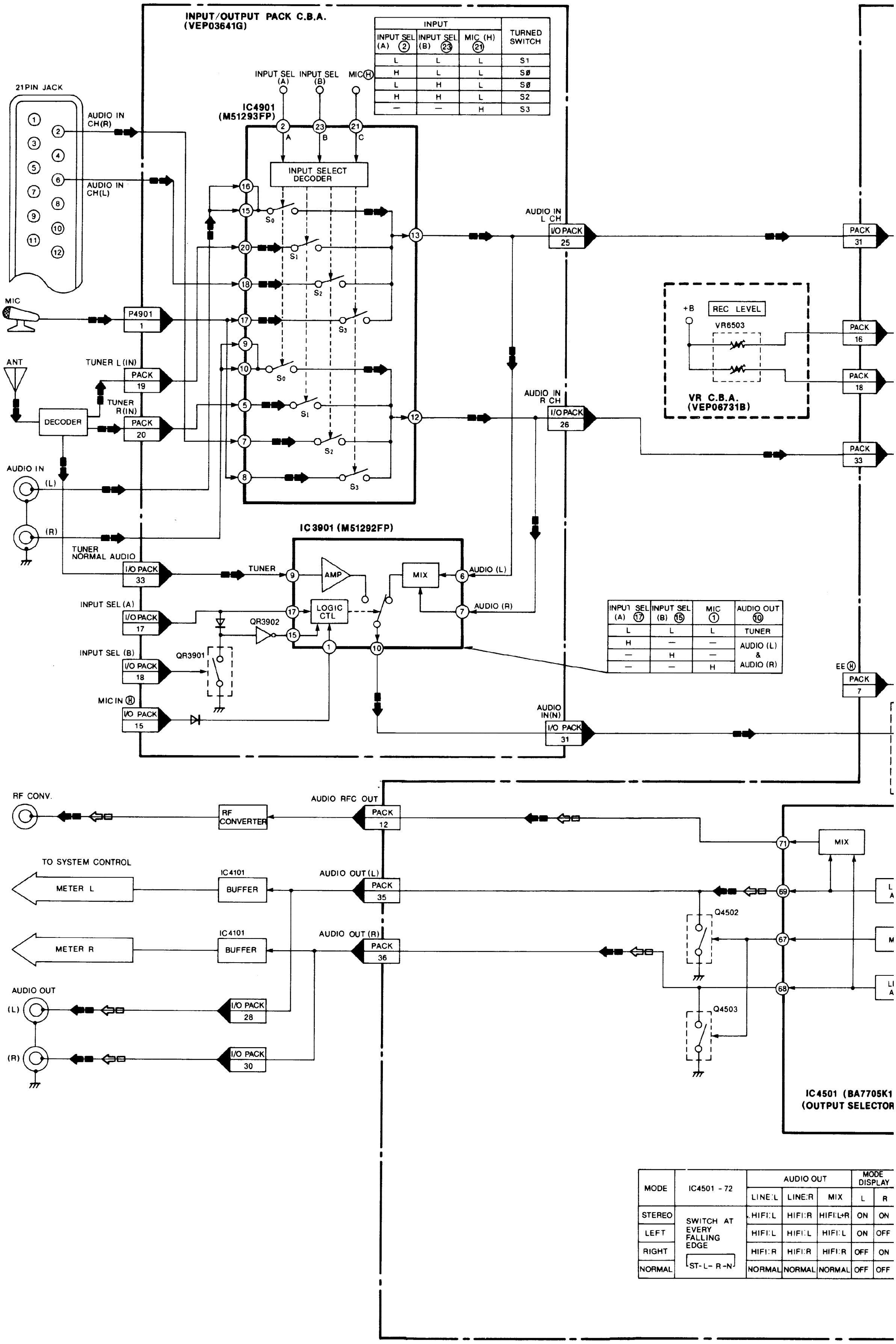

CTL
CAP FG
SP/LP/SLP DET
SLOW TR
SLOW COMMAND
SW GENE
H.SW
ART /MM
MODE DECODE
SERIAL DATA
SERIAL CLOCK
QR2213
LP Ⓗ
PACK 9
TO AUDIO/ Y/C PACK
ROTARY SW
PACK 20
TO Y/C PACK
ROTARY PHASE
H.AMP SW
PACK 21
TO H.AMP
H. AMP. SW
S-DATA
PACK 2
PACK 1
S.CLK
FROM SYSTEM CTL
43
2
3
35
34
30
9
32
33
8
12
13
14
15
16
17
H. SW GENERATOR
M.M.V
1/3
FG
FF
PG/FG SEPA
PG
H.SW
CYL DIGITAL SPEED CONTROL
D/A
MIX
COMP. SIG.
CYL DIGITAL PHASE CONTROL
REF.SIG
1/2
REC
P.B
COUNT DOWN
CTL PULSE GENE
DET
AUTO TRACKING
MODE DECODE
TRACKING M.M.V.
REC CTL AMP
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CAP FG
AMP
DIRECTION DET
(+) CLAMP
CURR LIMIT
CAP REVERSE (H) STOP (M) FORWARD(L)
CAP QUICKⒽ
SERVO PACK 44
QR2206
FROM SYSTEM CTL
REVERSEⒽ/STOPⓂ/ FORWARDⓁ
IC2901 (AN3815K)
P2201 P2902 3
P2201 P2902 2
TORQUE CONTROL
DIFFERENTIAL
PG/FG
POSITION
SCHMIT
18
7
3
15
1
2
+5V
FINE SLOW FREE RUN
VR2013
PACK 43
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2289
R2240
CURRENT IN SLOW MODE
560mV
TORQUE CONTROL
TORQUE DIRECTION
15
2
16
20
11
19
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)

PEED LOOP ⇦ CYLINDER SERVO PHASE LOOP


M 1
M 2
M 3
5 V
HE⁻
HE⁺
MOTOR 5V
IC2901-1
IC2901-2
IC2901-17
IC2901-8
0.35Vp-p
IC2901-9
0.8msec
2
1
17
8
9
DIFFERENTIAL AMP
POSITION DET
SCHMIT
QUE
TROL
FG
CYLINDER DRIVE C.B.A.
(VEX0117)
HALL IC
HCM
HEM
DD CYLINDER MOTOR
N
S
M1
M2
M3


P2202
9
7
18
10
12
13
15
14
16
5
6
15
23
3
1
24
19
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2206 (BA6435S)
(CAP DRIVE)
IC2001-①,③,㉓
2.2Vp-p
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
DD CAPSTAN MOTOR
FG1
(90° PHASE DIFFERENCE)
FG2
N
S
M1
M2
M3

3-4. Hi-Fi AUDIO BLOCK DIAGRAM

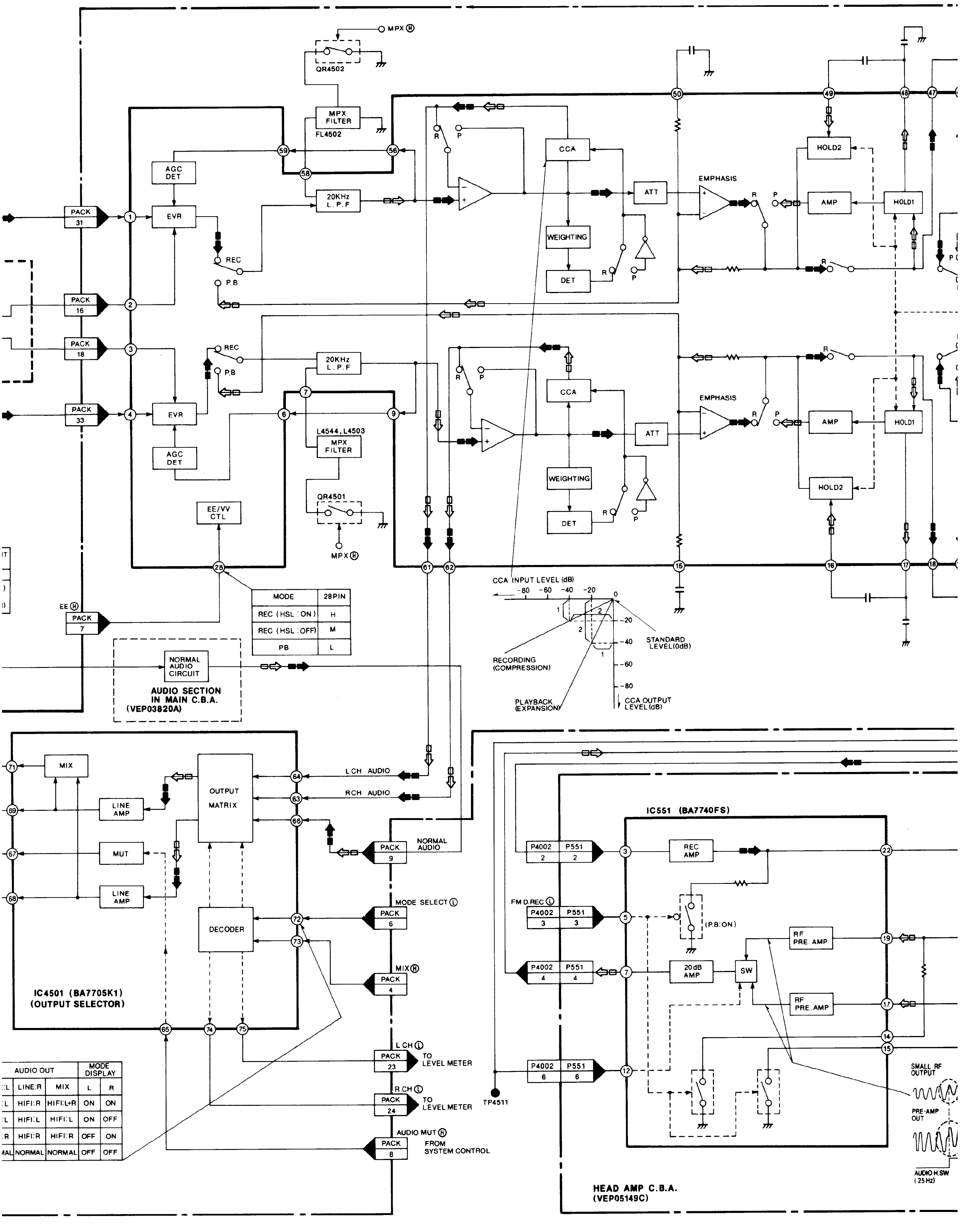

INPUT/OUTPUT PACK C.B.A.
(VEP03641G)
21PIN JACK
AUDIO IN CH(R)
AUDIO IN CH(L)
MIC
P4901
ANT
TUNER L(IN)
PACK 19
TUNER R(IN)
PACK 20
DECODER
AUDIO IN (L)
(R)
TUNER NORMAL AUDIO
I/O PACK 33
INPUT SEL (A)
I/O PACK 17
INPUT SEL (B)
I/O PACK 18
MIC IN Ⓗ
I/O PACK 15
INPUT SEL (A)
INPUT SEL (B)
MIC Ⓗ
IC4901 (M51293FP)
INPUT SELECT DECODER
S0
S1
S2
S3
AUDIO IN L CH
I/O PACK 25
AUDIO IN R CH
I/O PACK 26
IC3901 (M51292FP)
TUNER
AMP
MIX
LOGIC CTL
AUDIO (L)
AUDIO (R)
QR3902
QR3901
AUDIO IN(N)
I/O PACK 31
PACK 31
+B
REC LEVEL
VR6503
VR C.B.A.
(VEP06731B)
PACK 16
PACK 18
PACK 33
EE Ⓗ
PACK 7
RF CONV.
RF CONVERTER
AUDIO RFC OUT
PACK 12
TO SYSTEM CONTROL
METER L
IC4101
BUFFER
AUDIO OUT (L)
PACK 35
METER R
IC4101
BUFFER
AUDIO OUT (R)
PACK 36
AUDIO OUT
(L)
I/O PACK 28
(R)
I/O PACK 30
MIX
Q4502
Q4503
IC4501 (BA7705K1
(OUTPUT SELECTOR

INPUT			TURNED SWITCH
INPUT SEL (A) ②	INPUT SEL (B) ㉓	MIC (H) ㉑	
L	L	L	S1
H	L	L	S0
L	H	L	S0
H	H	L	S2
—	—	H	S3

INPUT SEL (A) ⑰	INPUT SEL (B) ⑮	MIC ①	AUDIO OUT ⑩
L	L	L	TUNER
H	—	—	AUDIO (L) & AUDIO (R)
—	H	—	
—	—	H	

MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE ST- L- R -N	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

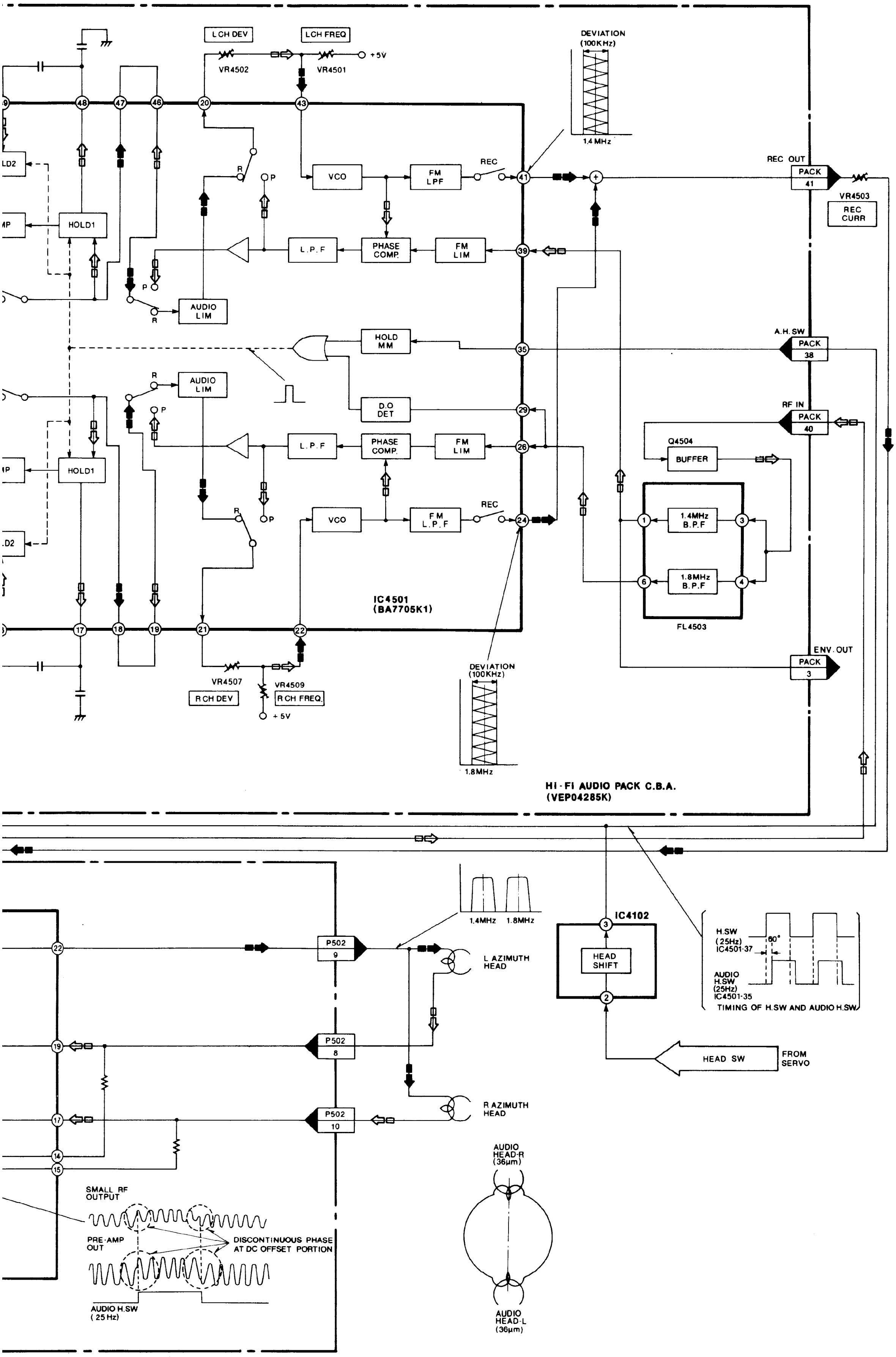
◀■ MAIN SIGNAL PATH IN REC MODE ⇦□ MAIN SIGNAL PATH IN PLA


MPX Ⓗ
QR4502
MPX FILTER
FL4502
AGC DET
EVR
REC
P.B
20KHz L.P.F
R
P
CCA
WEIGHTING
DET
ATT
EMPHASIS
HOLD2
AMP
HOLD1
PACK 31
PACK 16
PACK 18
PACK 33
L4544, L4503
MPX FILTER
QR4501
MPX Ⓗ
EE/VV CTL
EE Ⓗ
PACK 7
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A. (VEP03820A)
CCA INPUT LEVEL (dB)
-80
-60
-40
-20
0
1
2
2
1
-20
-40
-60
-80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL (dB)
MIX
LINE AMP
MUT
LINE AMP
OUTPUT MATRIX
DECODER
IC4501 (BA7705K1) (OUTPUT SELECTOR)
L CH AUDIO
R CH AUDIO
PACK 9
NORMAL AUDIO
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
L CH Ⓛ
PACK 23
TO LEVEL METER
R CH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
TP4511
IC551 (BA7740FS)
P4002 2
P551 2
REC AMP
FM D.REC Ⓛ
P4002 3
P551 3
(P.B:ON)
P4002 4
P551 4
20dB AMP
SW
RF PRE.AMP
RF PRE.AMP
P4002 6
P551 6
SMALL RF OUTPUT
PRE-AMP OUT
AUDIO H.SW (25Hz)
HEAD AMP C.B.A. (VEP05149C)

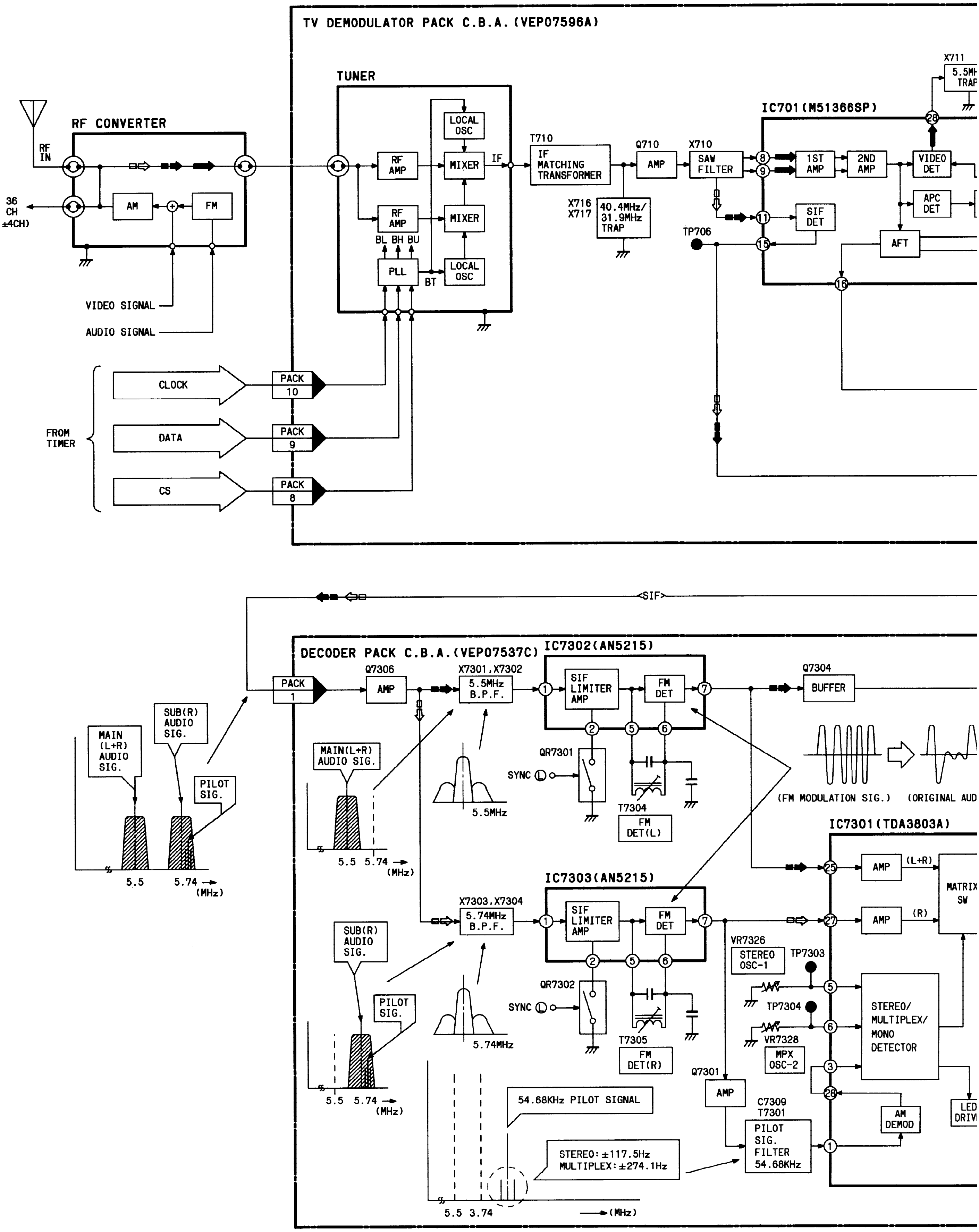
MODE	28PIN
REC (HSL :ON)	H
REC (HSL :OFF)	M
PB	L

AUDIO OUT			MODE DISPLAY	
:L	LINE:R	MIX	L	R
:L	HIFI:R	HIFI:L+R	ON	ON
:L	HIFI:L	HIFI:L	ON	OFF
:R	HIFI:R	HIFI:R	OFF	ON
MAL	NORMAL	NORMAL	OFF	OFF

PATH IN PLAYBACK MODE


L CH DEV
L CH FREQ
VR4502
VR4501
+5V
DEVIATION (100KHz)
1.4 MHz
REC
REC OUT
PACK 41
VR4503
REC CURR
VCO
FM LPF
PHASE COMP.
FM LIM
L.P.F
AUDIO LIM
HOLD1
LD2
HOLD MM
D.O DET
A.H.SW
PACK 38
RF IN
PACK 40
Q4504
BUFFER
1.4MHz B.P.F
1.8MHz B.P.F
FL4503
ENV. OUT
PACK 3
IC4501 (BA7705K1)
VR4507
VR4509
R CH DEV
R CH FREQ
+5V
DEVIATION (100KHz)
1.8MHz
HI-FI AUDIO PACK C.B.A. (VEP04285K)
1.4MHz 1.8MHz
P502 9
P502 8
P502 10
L AZIMUTH HEAD
R AZIMUTH HEAD
IC4102
HEAD SHIFT
HEAD SW
FROM SERVO
H.SW (25Hz) IC4501-37
60°
AUDIO H.SW (25Hz) IC4501-35
TIMING OF H.SW AND AUDIO H.SW
AUDIO HEAD-R (36μm)
AUDIO HEAD-L (36μm)
SMALL RF OUTPUT
PRE-AMP OUT
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H.SW (25 Hz)
R
P
REC

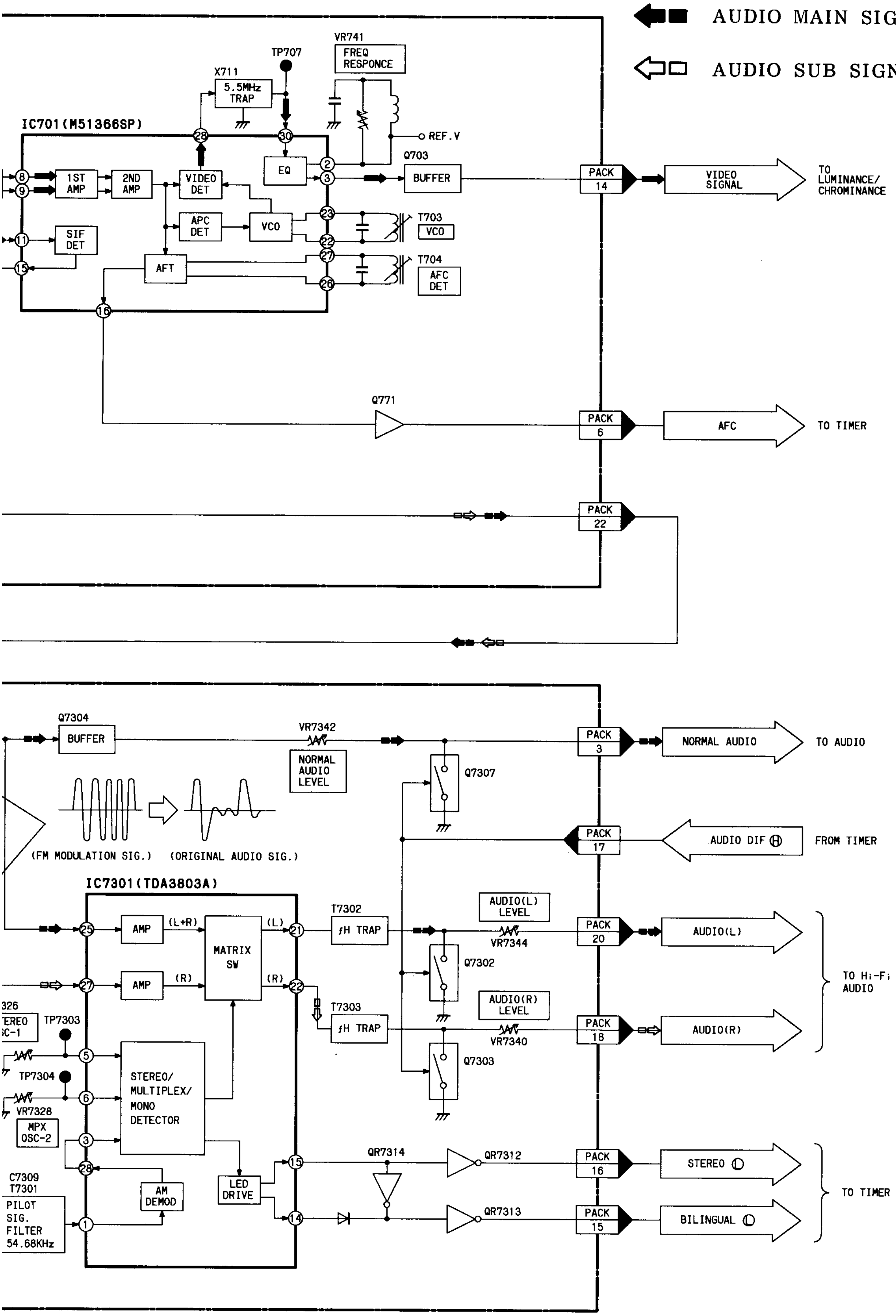
3-5. TV DEMODULATOR & DECODER BLOCK DIAGRAM


TV DEMODULATOR PACK C.B.A.(VEP07596A)
RF CONVERTER
RF IN
36 CH (±4CH)
AM
FM
VIDEO SIGNAL
AUDIO SIGNAL
TUNER
RF AMP
RF AMP
MIXER
MIXER
LOCAL OSC
LOCAL OSC
PLL
BL BH BU
BT
IF
T710
IF MATCHING TRANSFORMER
Q710
AMP
X716
X717
40.4MHz/ 31.9MHz TRAP
X710
SAW FILTER
TP706
IC701(M51366SP)
X711
5.5M
TRAP
1ST AMP
2ND AMP
VIDEO DET
APC DET
SIF DET
AFT
8
9
11
15
16
28
CLOCK
DATA
CS
FROM TIMER
PACK 10
PACK 9
PACK 8
SIF
DECODER PACK C.B.A.(VEP07537C)
PACK 1
Q7306
AMP
X7301,X7302
5.5MHz B.P.F.
IC7302(AN5215)
SIF LIMITER AMP
FM DET
1
2
5
6
7
QR7301
SYNC
T7304
FM DET(L)
5.5MHz
Q7304
BUFFER
(FM MODULATION SIG.)
(ORIGINAL AUD
MAIN (L+R) AUDIO SIG.
SUB(R) AUDIO SIG.
PILOT SIG.
5.5
5.74
(MHz)
MAIN(L+R) AUDIO SIG.
5.5 5.74
(MHz)
X7303,X7304
5.74MHz B.P.F.
IC7303(AN5215)
SIF LIMITER AMP
FM DET
1
2
5
6
7
QR7302
SYNC
T7305
FM DET(R)
5.74MHz
SUB(R) AUDIO SIG.
PILOT SIG.
5.5 5.74
(MHz)
54.68KHz PILOT SIGNAL
STEREO: ±117.5Hz
MULTIPLEX: ±274.1Hz
5.5 3.74
(MHz)
IC7301(TDA3803A)
25
27
5
6
3
28
1
AMP
AMP
(L+R)
(R)
MATRIX SW
VR7326
STEREO OSC-1
TP7303
TP7304
VR7328
MPX OSC-2
STEREO/ MULTIPLEX/ MONO DETECTOR
Q7301
AMP
C7309
T7301
PILOT SIG. FILTER 54.68KHz
AM DEMOD
LED DRIV

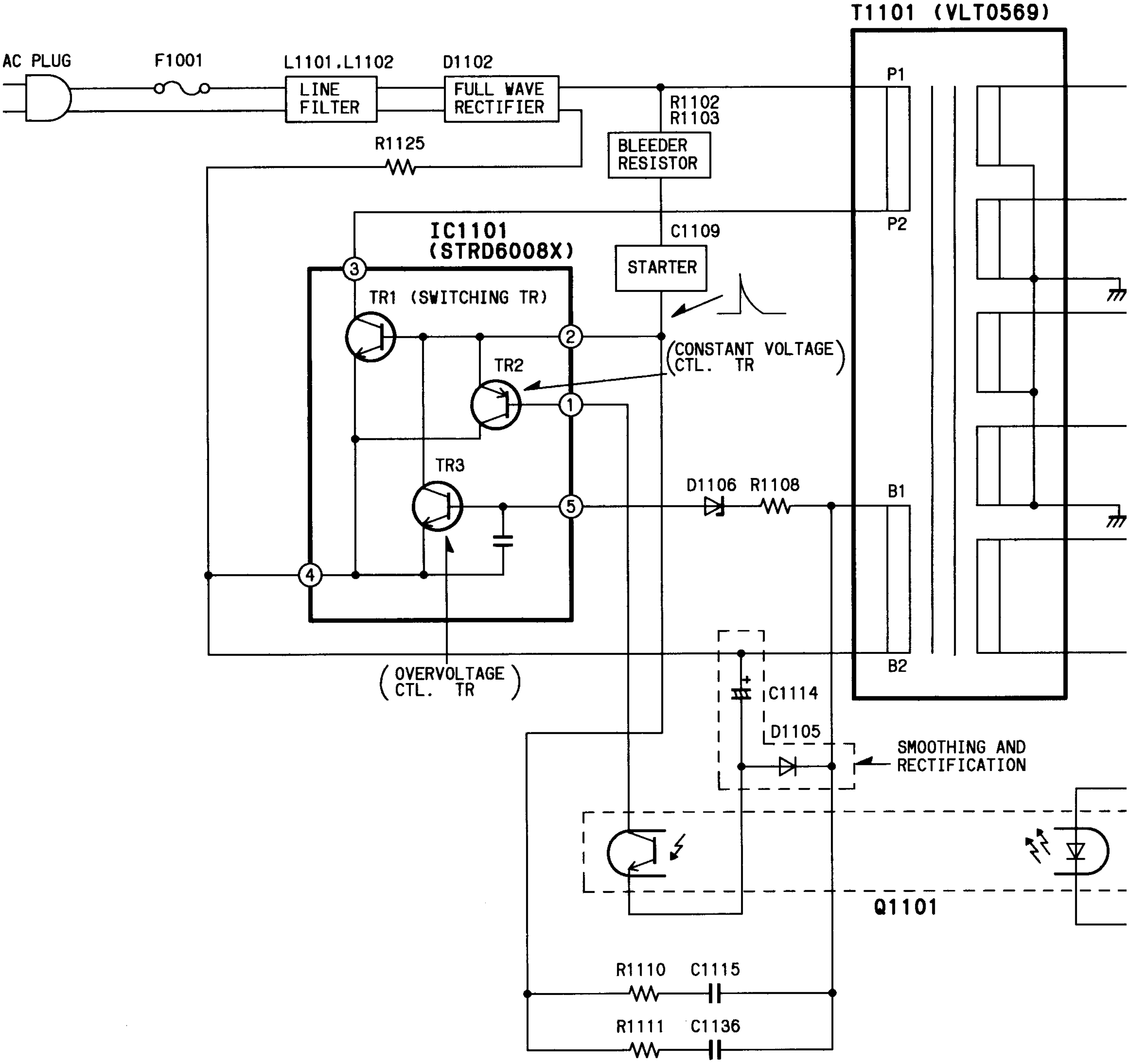
◀■ VIDEO SIGNAL PATH

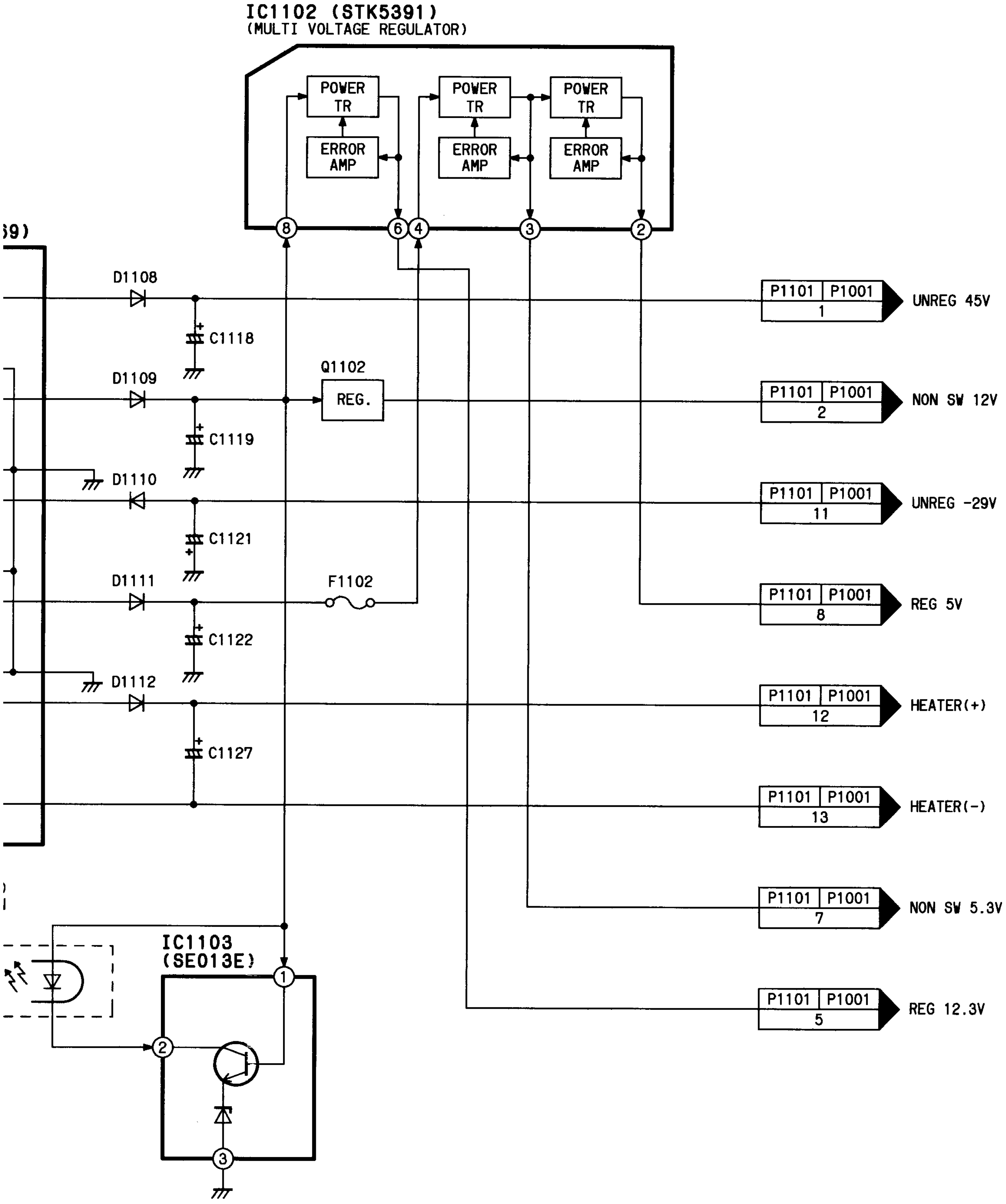
◀■■ AUDIO MAIN SIGNAL PATH

◁□ AUDIO SUB SIGNAL PATH

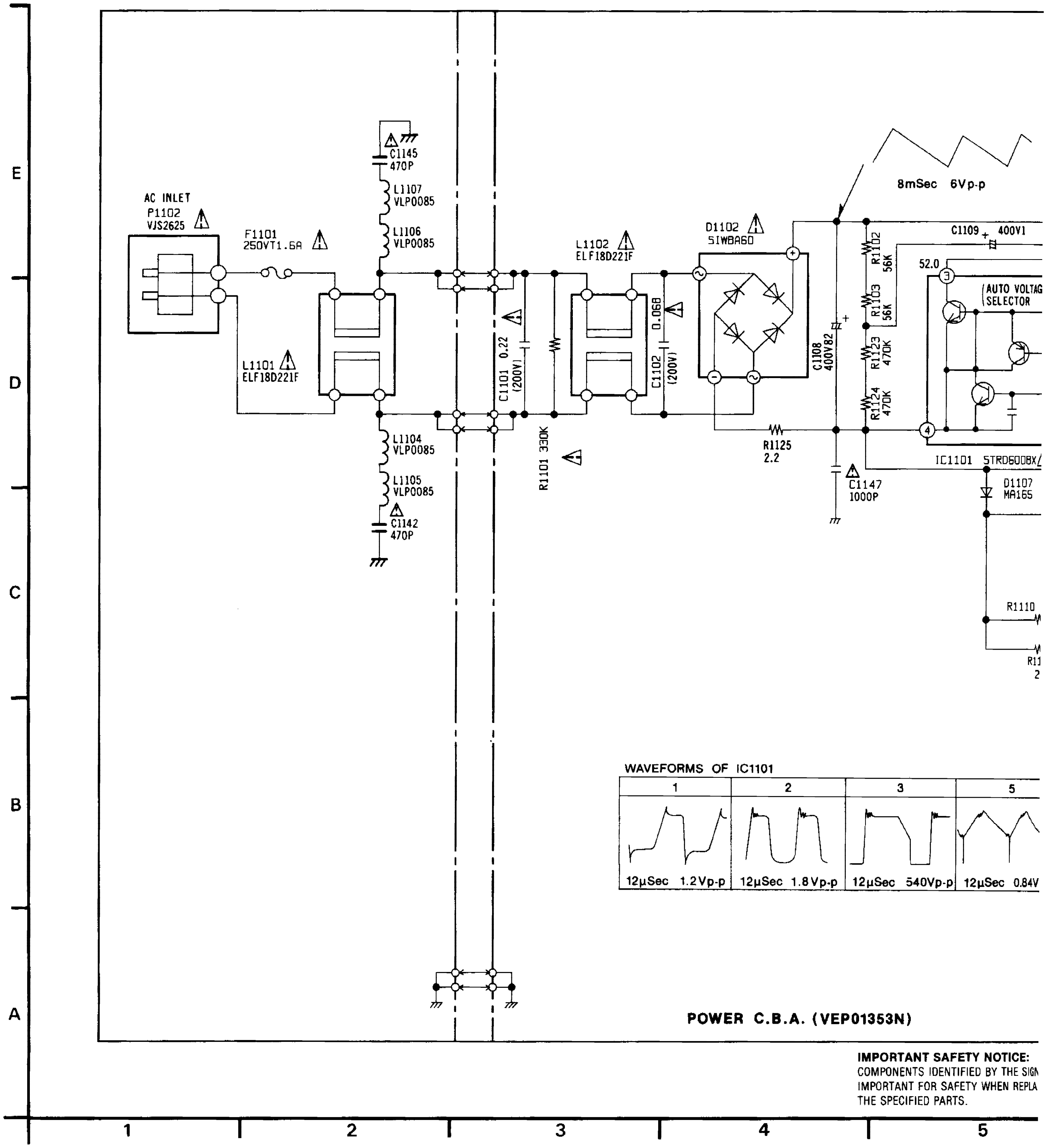

VR741
FREQ RESPONCE
TP707
X711
5.5MHz TRAP
IC701(M51366SP)
REF.V
Q703
EQ
BUFFER
1ST AMP
2ND AMP
VIDEO DET
APC DET
VCO
T703
VCO
SIF DET
AFT
T704
AFC DET
PACK 14
VIDEO SIGNAL
TO LUMINANCE/ CHROMINANCE
Q771
PACK 6
AFC
TO TIMER
PACK 22
Q7304
BUFFER
VR7342
NORMAL AUDIO LEVEL
PACK 3
NORMAL AUDIO
TO AUDIO
Q7307
(FM MODULATION SIG.)
(ORIGINAL AUDIO SIG.)
PACK 17
AUDIO DIF Ⓗ
FROM TIMER
IC7301(TDA3803A)
AMP
(L+R)
MATRIX SW
(L)
T7302
fH TRAP
AUDIO(L) LEVEL
VR7344
PACK 20
AUDIO(L)
Q7302
AMP
(R)
(R)
T7303
fH TRAP
AUDIO(R) LEVEL
VR7340
PACK 18
AUDIO(R)
TO Hi-Fi AUDIO
326
TEREO
SC-1
TP7303
TP7304
Q7303
STEREO/ MULTIPLEX/ MONO DETECTOR
VR7328
MPX OSC-2
QR7314
QR7312
PACK 16
STEREO Ⓛ
TO TIMER
C7309
T7301
PILOT SIG. FILTER 54.68KHz
AM DEMOD
LED DRIVE
QR7313
PACK 15
BILINGUAL Ⓛ

3-6. POWER BLOCK DIAGRAM

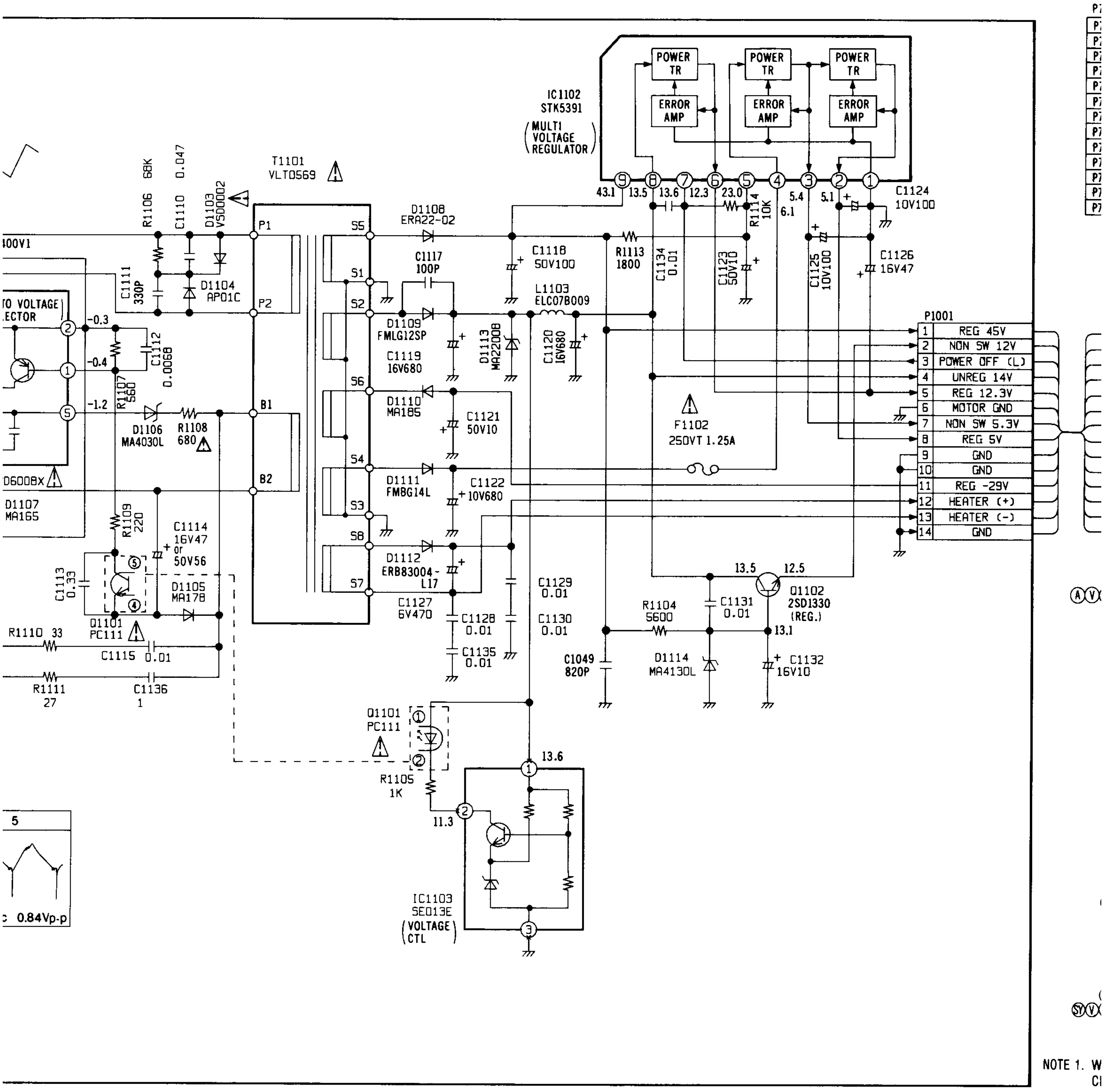

T1101 (VLT0569)
AC PLUG
F1001
L1101.L1102
LINE FILTER
D1102
FULL WAVE RECTIFIER
R1102
R1103
BLEEDER RESISTOR
R1125
P1
P2
IC1101
(STRD6008X)
C1109
STARTER
TR1 (SWITCHING TR)
TR2
(CONSTANT VOLTAGE CTL. TR)
TR3
D1106
R1108
B1
B2
(OVERVOLTAGE CTL. TR)
C1114
D1105
SMOOTHING AND RECTIFICATION
Q1101
R1110
C1115
R1111
C1136
1
2
3
4
5


IC1102 (STK5391)
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
POWER TR
ERROR AMP
POWER TR
ERROR AMP
8
6
4
3
2
59)
D1108
C1118
D1109
Q1102
REG.
C1119
D1110
C1121
D1111
F1102
C1122
D1112
C1127
P1101 P1001 1 UNREG 45V
P1101 P1001 2 NON SW 12V
P1101 P1001 11 UNREG -29V
P1101 P1001 8 REG 5V
P1101 P1001 12 HEATER(+)
P1101 P1001 13 HEATER(-)
P1101 P1001 7 NON SW 5.3V
P1101 P1001 5 REG 12.3V
IC1103
(SE013E)
1
2
3

3-7. POWER SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
3
4
5
AC INLET
P1102
VJS2625
F1101
250VT1.6A
L1101
ELF18D221F
C1145
470P
L1107
VLP0085
L1106
VLP0085
L1104
VLP0085
L1105
VLP0085
C1142
470P
C1101 0.22
(200V)
R1101 330K
L1102
ELF18D221F
C1102 0.068
(200V)
D1102
S1WBA60
C1108
400V82
R1125
2.2
C1147
1000P
8mSec 6Vp-p
R1102
56K
R1103
56K
R1123
470K
R1124
470K
C1109
400V1
52.0
3
4
AUTO VOLTAG
SELECTOR
IC1101 STRD6008X/
D1107
MA165
R1110
R11
2
WAVEFORMS OF IC1101
1
2
3
5
12μSec 1.2Vp-p
12μSec 1.8Vp-p
12μSec 540Vp-p
12μSec 0.84V
POWER C.B.A. (VEP01353N)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN
IMPORTANT FOR SAFETY WHEN REPLA
THE SPECIFIED PARTS.


IC1102
STK5391
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
T1101
VLT0569
R1106 68K
C1110 0.047
D1103 VSD0002
D1104 AP01C
C1111 330P
100V1
TO VOLTAGE
ECTOR
-0.3
-0.4
-1.2
R1107 560
C1112 0.0068
D1106 MA4030L
R1108 680
D6008X
D1107 MA165
R1109 220
C1114 16V47 or 50V56
C1113 0.33
Q1101 PC111
D1105 MA178
R1110 33
C1115 0.01
R1111 27
C1136 1
P1 P2 B1 B2
S5 S1 S2 S6 S4 S3 S8 S7
D1108 ERA22-02
C1117 100P
D1109 FMLG12SP
C1119 16V680
D1110 MA185
C1121 50V10
D1111 FMBG14L
C1122 10V680
D1112 ERB83004-L17
C1127 6V470
C1128 0.01
C1135 0.01
C1118 50V100
L1103 ELC07B009
D1113 MA2200B
C1120 16V680
C1129 0.01
C1130 0.01
R1113 1800
C1134 0.01
C1123 50V10
R1114 10K
C1125 10V100
C1124 10V100
C1126 16V47
43.1 13.5 13.6 12.3 23.0 5.4 6.1 5.1
F1102
250VT 1.25A
C1049 820P
R1104 5600
C1131 0.01
D1114 MA4130L
Q1102 2SD1330 (REG.)
13.5 12.5 13.1
C1132 16V10
Q1101 PC111
R1105 1K
11.3
13.6
IC1103 SE013E (VOLTAGE CTL)
P1001
1 REG 45V
2 NON SW 12V
3 POWER OFF (L)
4 UNREG 14V
5 REG 12.3V
6 MOTOR GND
7 NON SW 5.3V
8 REG 5V
9 GND
10 GND
11 REG -29V
12 HEATER (+)
13 HEATER (-)
14 GND
5
0.84Vp-p

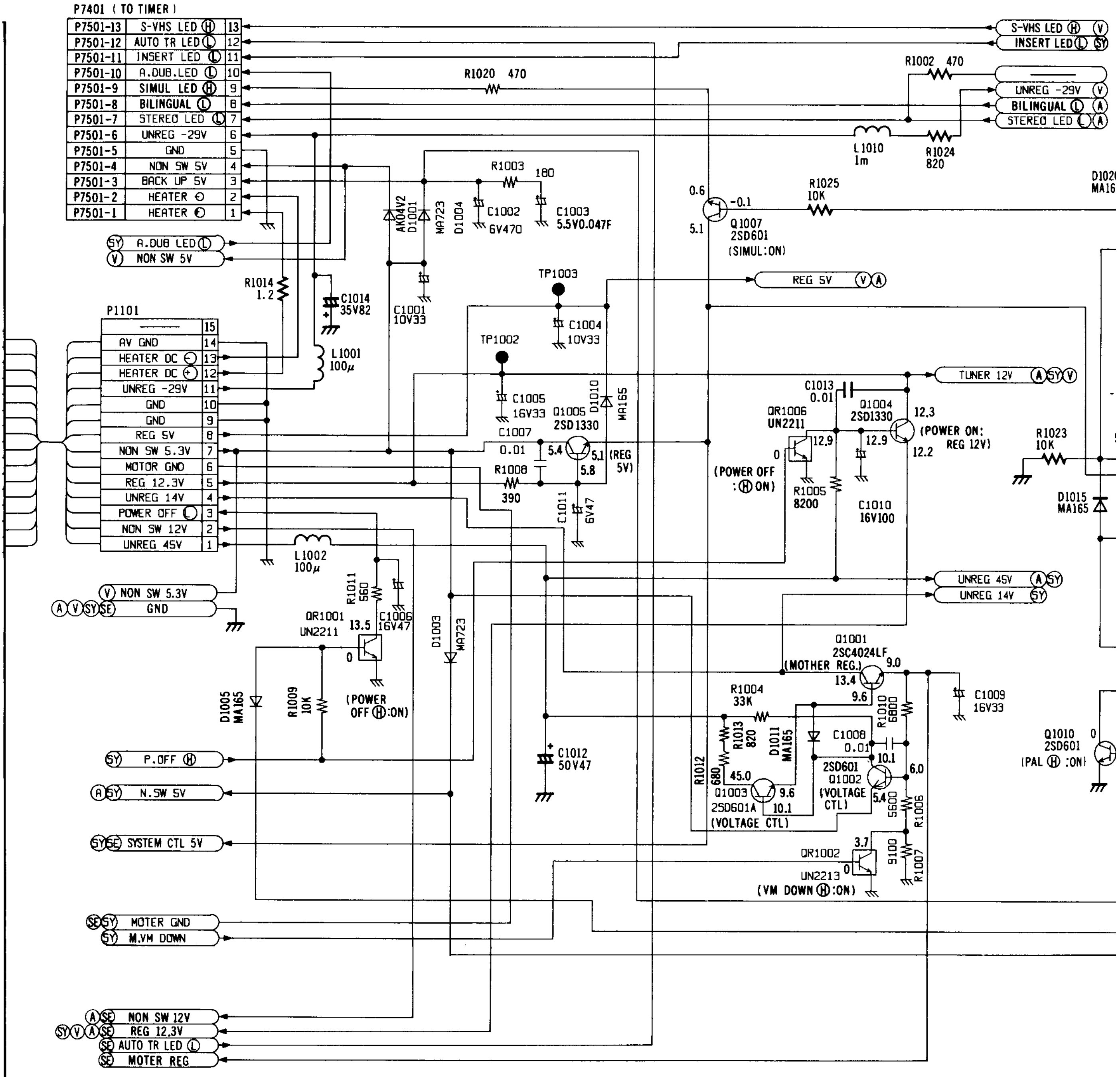
NOTE 1. W
Cl

TICE:
THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS
EN REPLACING ANY OF THESE COMPONENTS, USE ONLY

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.
(S-VHS: SP MODE)

NOTE 2. TI
IN

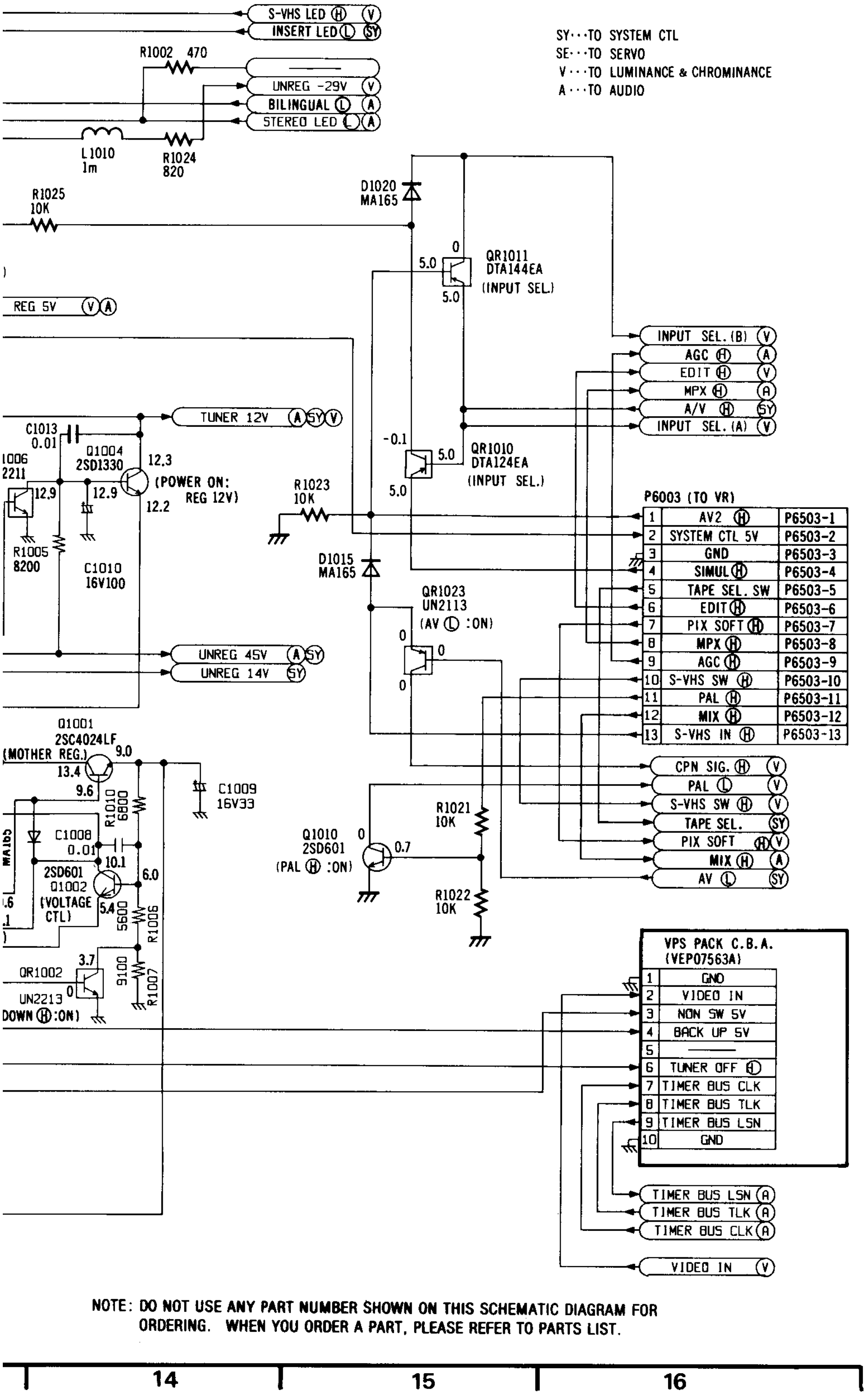
6 7 8 9 10


P7401 (TO TIMER)
P7501-13 S-VHS LED Ⓗ 13
P7501-12 AUTO TR LED Ⓛ 12
P7501-11 INSERT LED Ⓛ 11
P7501-10 A.DUB.LED Ⓛ 10
P7501-9 SIMUL LED Ⓗ 9
P7501-8 BILINGUAL Ⓛ 8
P7501-7 STEREO LED Ⓛ 7
P7501-6 UNREG -29V 6
P7501-5 GND 5
P7501-4 NON SW 5V 4
P7501-3 BACK UP 5V 3
P7501-2 HEATER ⊖ 2
P7501-1 HEATER ⊕ 1
S-VHS LED Ⓗ Ⓥ
INSERT LED Ⓛ ⓈⓎ
R1002 470
R1020 470
UNREG -29V Ⓥ
BILINGUAL Ⓛ Ⓐ
STEREO LED Ⓛ Ⓐ
L1010 1m
R1024 820
R1003 180
AK04V2 D1001
MA723 D1004
C1002 6V470
C1003 5.5V0.047F
0.6
-0.1
5.1
Q1007 2SD601 (SIMUL:ON)
R1025 10K
D1020 MA16
ⓈⓎ A.DUB LED Ⓛ
Ⓥ NON SW 5V
R1014 1.2
C1014 35V82
C1001 10V33
TP1003
REG 5V ⓋⒶ
C1004 10V33
P1101
15
AV GND 14
HEATER DC ⊖ 13
HEATER DC ⊕ 12
UNREG -29V 11
GND 10
GND 9
REG 5V 8
NON SW 5.3V 7
MOTOR GND 6
REG 12.3V 5
UNREG 14V 4
POWER OFF Ⓛ 3
NON SW 12V 2
UNREG 45V 1
L1001 100μ
TP1002
C1005 16V33
D1010 MA165
Q1005 2SD1330
C1007 0.01
5.4
5.1
5.8
(REG 5V)
R1008 390
C1011 6V47
TUNER 12V ⒶⓈⓎⓋ
C1013 0.01
QR1006 UN2211
Q1004 2SD1330
12.3
(POWER ON: REG 12V)
12.9
12.9
12.2
0
(POWER OFF :Ⓗ ON)
R1005 8200
C1010 16V100
R1023 10K
D1015 MA165
L1002 100μ
Ⓥ NON SW 5.3V
ⒶⓋⓈⓎⓈⒺ GND
R1011 560
C1006 16V47
QR1001 UN2211
13.5
0
(POWER OFF Ⓗ:ON)
D1003 MA723
UNREG 45V ⒶⓈⓎ
UNREG 14V ⓈⓎ
Q1001 2SC4024LF (MOTHER REG.)
9.0
13.4
9.6
C1009 16V33
D1005 MA165
R1009 10K
R1004 33K
R1013 820
D1011 MA165
C1008 0.01
R1010 6800
ⓈⓎ P.OFF Ⓗ
C1012 50V47
R1012 680
45.0
Q1003 2SD601A
9.6
10.1
(VOLTAGE CTL)
2SD601 Q1002 (VOLTAGE CTL)
10.1
6.0
5.4
R1006 5600
Q1010 2SD601 (PAL Ⓗ :ON)
0
ⒶⓈⓎ N.SW 5V
ⓈⓎⓈⒺ SYSTEM CTL 5V
QR1002 UN2213 (VM DOWN Ⓗ:ON)
3.7
0
R1007 9100
ⓈⒺⓈⓎ MOTER GND
ⓈⓎ M.VM DOWN
ⒶⓈⒺ NON SW 12V
ⓈⓎⓋⒶⓈⒺ REG 12.3V
ⓈⒺ AUTO TR LED Ⓛ
ⓈⒺ MOTER REG

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

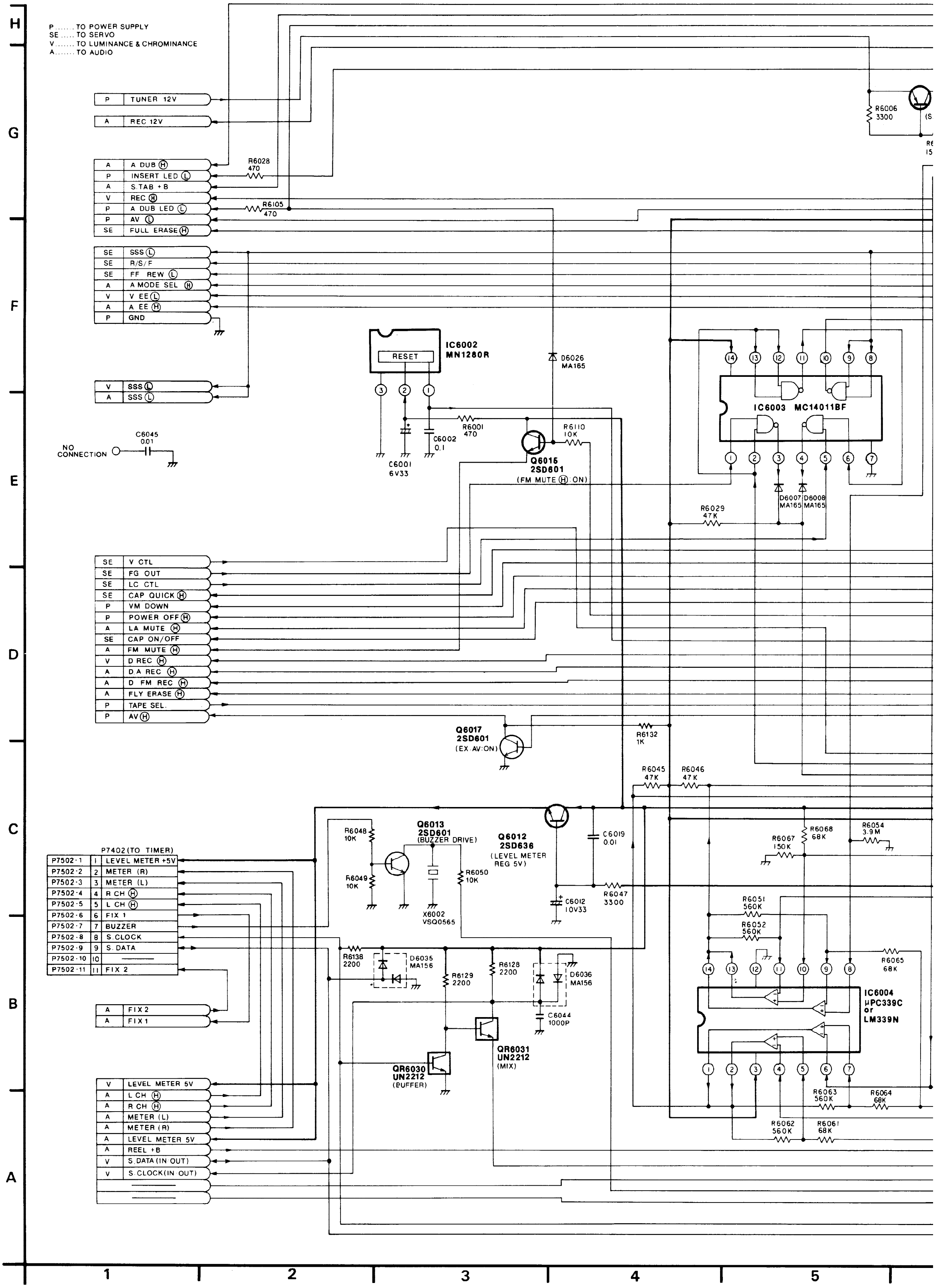
NOTE: DO NOT USE ANY PART NUMBER SHO
ORDERING. WHEN YOU ORDER A PA


S-VHS LED Ⓗ Ⓥ
INSERT LED Ⓛ ⓈⓎ
R1002 470
UNREG -29V Ⓥ
BILINGUAL Ⓛ Ⓐ
STEREO LED Ⓛ Ⓐ
L1010 1m
R1024 820
R1025 10K
REG 5V Ⓥ Ⓐ
D1020 MA165
QR1011 DTA144EA (INPUT SEL.)
5.0
0
5.0
INPUT SEL. (B) Ⓥ
AGC Ⓗ Ⓐ
EDIT Ⓗ Ⓥ
MPX Ⓗ Ⓐ
A/V Ⓗ ⓈⓎ
INPUT SEL. (A) Ⓥ
TUNER 12V Ⓐ ⓈⓎ Ⓥ
C1013 0.01
Q1004 2SD1330
12.3 (POWER ON: REG 12V)
12.9
12.9
12.2
R1005 8200
C1010 16V100
-0.1
5.0
QR1010 DTA124EA (INPUT SEL.)
5.0
R1023 10K
D1015 MA165
QR1023 UN2113 (AV Ⓛ :ON)
0
0
0
UNREG 45V Ⓐ ⓈⓎ
UNREG 14V ⓈⓎ
Q1001 2SC4024LF (MOTHER REG.)
9.0
13.4
9.6
R1010 6800
C1009 16V33
C1008 0.01
10.1
2SD601 Q1002 (VOLTAGE CTL)
6.0
5.4
5600
R1006
3.7
QR1002 UN2213
0
DOWN Ⓗ :ON)
9100
R1007
Q1010 2SD601 (PAL Ⓗ :ON)
0
0.7
R1021 10K
R1022 10K
P6003 (TO VR)
1 AV2 Ⓗ P6503-1
2 SYSTEM CTL 5V P6503-2
3 GND P6503-3
4 SIMUL Ⓗ P6503-4
5 TAPE SEL. SW P6503-5
6 EDIT Ⓗ P6503-6
7 PIX SOFT Ⓗ P6503-7
8 MPX Ⓗ P6503-8
9 AGC Ⓗ P6503-9
10 S-VHS SW Ⓗ P6503-10
11 PAL Ⓗ P6503-11
12 MIX Ⓗ P6503-12
13 S-VHS IN Ⓗ P6503-13
CPN SIG. Ⓗ Ⓥ
PAL Ⓛ Ⓥ
S-VHS SW Ⓗ Ⓥ
TAPE SEL. ⓈⓎ
PIX SOFT Ⓗ Ⓥ
MIX Ⓗ Ⓐ
AV Ⓛ ⓈⓎ
VPS PACK C.B.A. (VEP07563A)
1 GND
2 VIDEO IN
3 NON SW 5V
4 BACK UP 5V
5 ———
6 TUNER OFF Ⓗ
7 TIMER BUS CLK
8 TIMER BUS TLK
9 TIMER BUS LSN
10 GND
TIMER BUS LSN Ⓐ
TIMER BUS TLK Ⓐ
TIMER BUS CLK Ⓐ
VIDEO IN Ⓥ
14
15
16

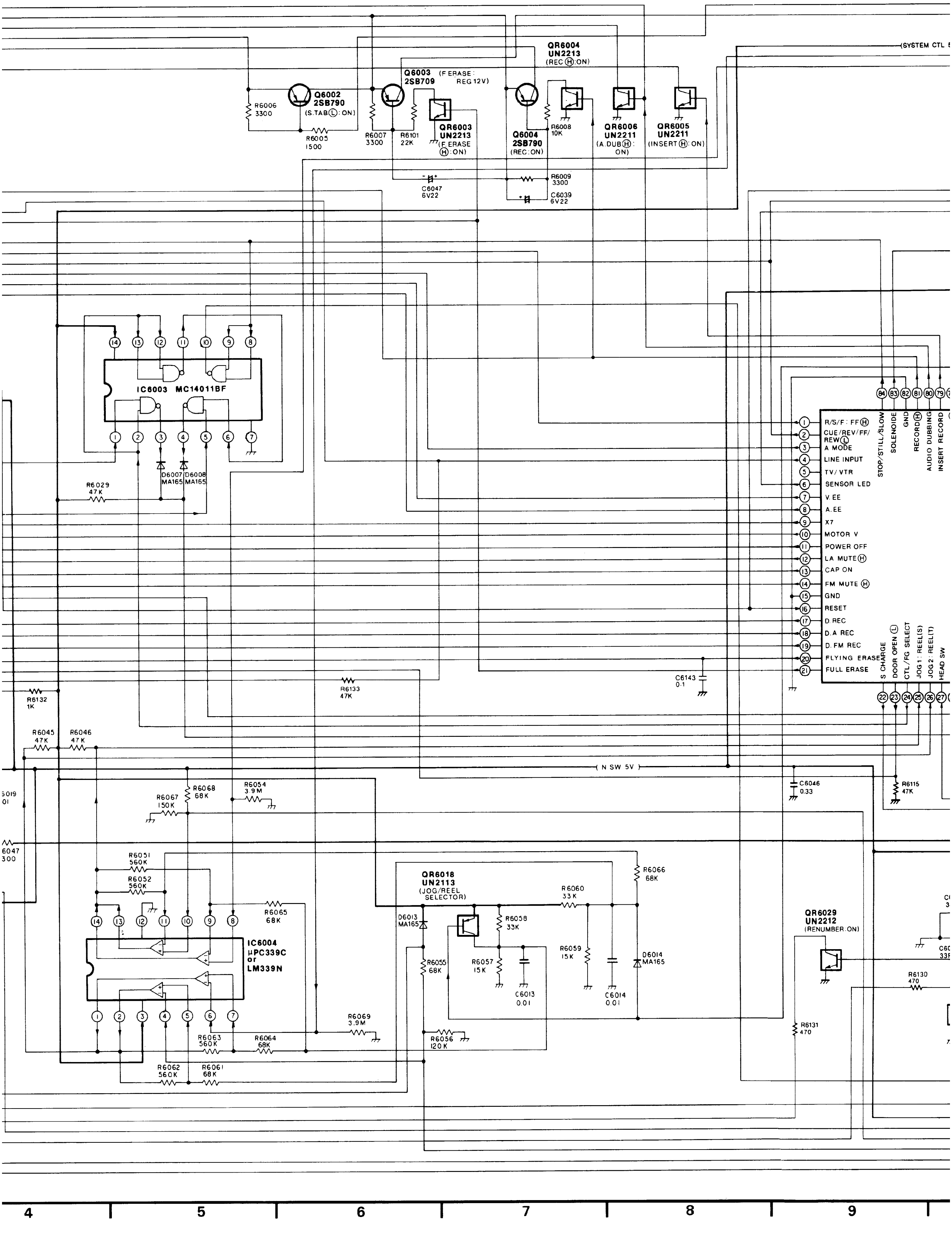
SY···TO SYSTEM CTL
SE···TO SERVO
V···TO LUMINANCE & CHROMINANCE
A···TO AUDIO

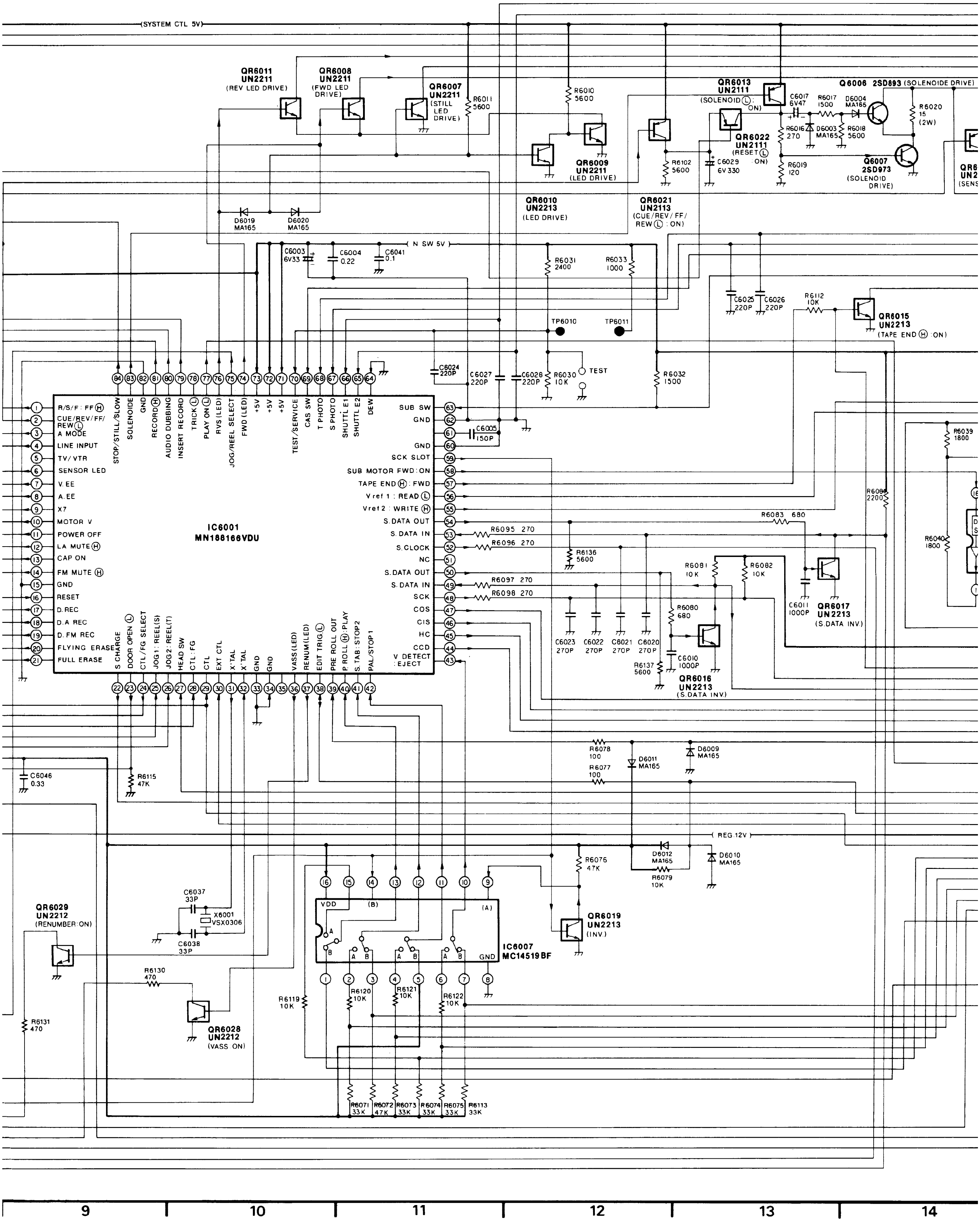
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

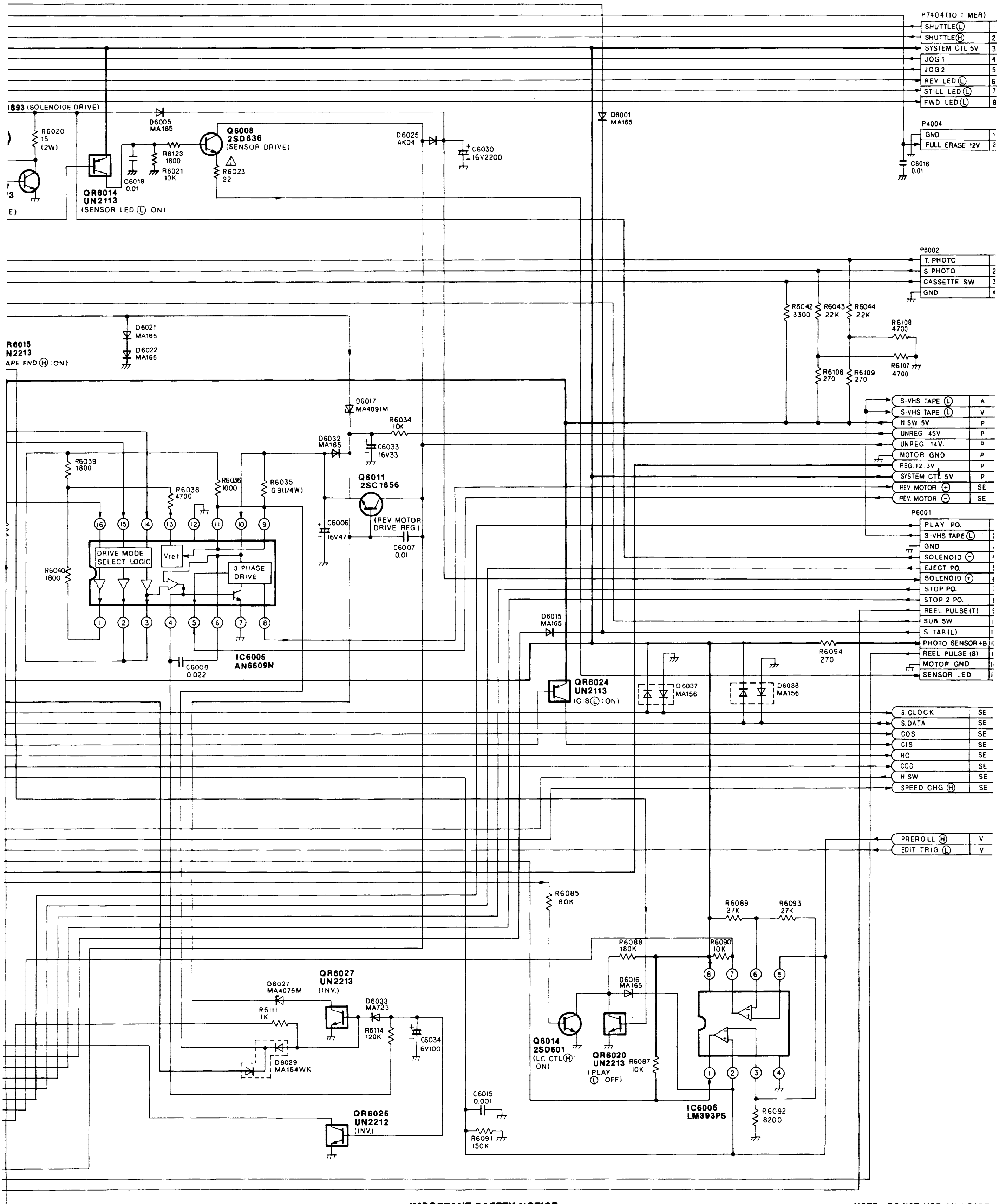
3-9. SYSTEM CONTROL SCHEMATIC DIAGRAM


P……TO POWER SUPPLY
SE……TO SERVO
V……TO LUMINANCE & CHROMINANCE
A……TO AUDIO
H
G
F
E
D
C
B
A
1
2
3
4
5
P TUNER 12V
A REC 12V
A A DUB Ⓗ
P INSERT LED Ⓛ
A S.TAB +B
V REC Ⓗ
P A DUB LED Ⓛ
P AV Ⓛ
SE FULL ERASE Ⓗ
SE SSS Ⓛ
SE R/S/F
SE FF REW Ⓛ
A A MODE SEL Ⓗ
V V EE Ⓛ
A A EE Ⓗ
P GND
V SSS Ⓛ
A SSS Ⓛ
R6028 470
R6105 470
R6006 3300
IC6002 MN1280R
RESET
D6026 MA165
C6045 0.01
NO CONNECTION
R6001 470
R6110 10K
C6002 0.1
C6001 6V33
Q6015 2SD601 (FM MUTE Ⓗ ON)
IC6003 MC14011BF
D6007 MA165
D6008 MA165
R6029 47K
SE V CTL
SE FG OUT
SE LC CTL
SE CAP QUICK Ⓗ
P VM DOWN
P POWER OFF Ⓗ
A LA MUTE Ⓗ
SE CAP ON/OFF
A FM MUTE Ⓗ
V D REC Ⓗ
A D.A REC Ⓗ
A D FM REC Ⓗ
A FLY ERASE Ⓗ
P TAPE SEL.
P AV Ⓗ
Q6017 2SD601 (EX AV:ON)
R6132 1K
R6045 47K
R6046 47K
P7402 (TO TIMER)
P7502-1 1 LEVEL METER +5V
P7502-2 2 METER (R)
P7502-3 3 METER (L)
P7502-4 4 R CH Ⓗ
P7502-5 5 L CH Ⓗ
P7502-6 6 FIX 1
P7502-7 7 BUZZER
P7502-8 8 S.CLOCK
P7502-9 9 S.DATA
P7502-10 10
P7502-11 11 FIX 2
R6048 10K
R6049 10K
Q6013 2SD601 (BUZZER DRIVE)
X6002 VSQ0565
R6050 10K
Q6012 2SD636 (LEVEL METER REG 5V)
C6019 0.01
C6012 10V33
R6047 3300
R6067 150K
R6068 68K
R6054 3.9M
R6051 560K
R6052 560K
R6065 68K
IC6004 μPC339C or LM339N
R6063 560K
R6064 68K
R6062 560K
R6061 68K
R6138 2200
D6035 MA156
R6129 2200
R6128 2200
D6036 MA156
C6044 1000P
QR6031 UN2212 (MIX)
QR6030 UN2212 (BUFFER)
A FIX 2
A FIX 1
V LEVEL METER 5V
A L CH Ⓗ
A R CH Ⓗ
A METER (L)
A METER (R)
A LEVEL METER 5V
A REEL +B
V S.DATA (IN OUT)
V S.CLOCK (IN OUT)

AM


(SYSTEM CTL 5
QR6004
UN2213
(REC Ⓗ:ON)
Q6003 (F.ERASE:
2SB709 REG 12V)
Q6002
2SB790
(S.TAB Ⓛ: ON)
R6006
3300
R6005
1500
R6007
3300
R6101
22K
QR6003
UN2213
(F.ERASE
Ⓗ:ON)
Q6004
2SB790
(REC:ON)
R6008
10K
QR6006
UN2211
(A.DUB Ⓗ:
ON)
QR6005
UN2211
(INSERT Ⓗ: ON)
C6047
6V22
R6009
3300
C6039
6V22
IC6003 MC14011BF
D6007
MA165
D6008
MA165
R6029
47K
STOP/STILL/SLOW
SOLENOIDE
GND
RECORD Ⓗ
AUDIO DUBBING
INSERT RECORD
R/S/F: FF Ⓗ
CUE/REV/FF/REW Ⓛ
A MODE
LINE INPUT
TV/VTR
SENSOR LED
V.EE
A.EE
X7
MOTOR V
POWER OFF
LA MUTE Ⓗ
CAP ON
FM MUTE Ⓗ
GND
RESET
D.REC
D.A REC
D.FM REC
FLYING ERASE
FULL ERASE
S CHARGE
DOOR OPEN Ⓛ
CTL/FG SELECT
JOG 1: REEL(S)
JOG 2: REEL(T)
HEAD SW
C6143
0.1
R6133
47K
R6132
1K
R6045
47K
R6046
47K
(N SW 5V)
C6046
0.33
R6115
47K
6019
01
R6068
68K
R6067
150K
R6054
3.9M
6047
300
R6051
560K
R6052
560K
R6065
68K
IC6004
μPC339C
or
LM339N
QR6018
UN2113
(JOG/REEL
SELECTOR)
R6066
68K
R6060
33K
D6013
MA165
R6058
33K
R6059
15K
D6014
MA165
R6055
68K
R6057
15K
C6013
0.01
C6014
0.01
QR6029
UN2212
(RENUMBER:ON)
R6130
470
R6131
470
R6069
3.9M
R6063
560K
R6064
68K
R6056
120K
R6062
560K
R6061
68K
4
5
6
7
8
9

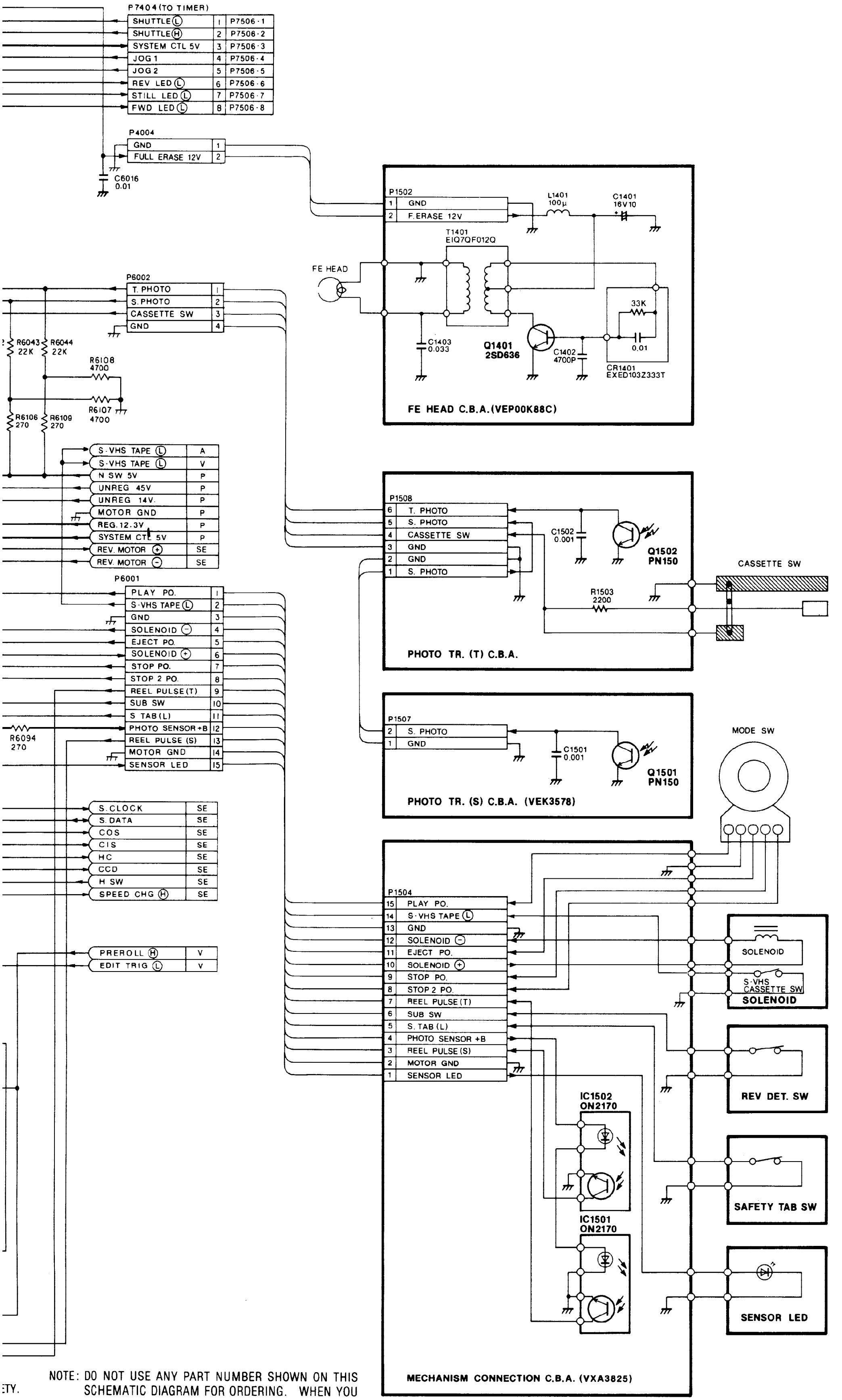

(SYSTEM CTL 5V)
QR6011 UN2211 (REV LED DRIVE)
QR6008 UN2211 (FWD LED DRIVE)
QR6007 UN2211 (STILL LED DRIVE)
R6011 5600
R6010 5600
QR6009 UN2211 (LED DRIVE)
QR6010 UN2213 (LED DRIVE)
QR6013 UN2111 (SOLENOID Ⓛ: ON)
QR6022 UN2111 (RESET Ⓛ : ON)
QR6021 UN2113 (CUE/REV/FF/ REW Ⓛ : ON)
R6102 5600
C6029 6V330
C6017 6V47
R6016 270
R6017 1500
D6003 MA165
D6004 MA165
R6018 5600
R6019 120
Q6006 2SD893 (SOLENOIDE DRIVE)
R6020 15 (2W)
Q6007 2SD973 (SOLENOID DRIVE)
D6019 MA165
D6020 MA165
N SW 5V
C6003 6V33
C6004 0.22
C6041 0.1
R6031 2400
R6033 1000
C6025 220P
C6026 220P
R6112 10K
QR6015 UN2213 (TAPE END Ⓗ : ON)
TP6010
TP6011
C6024 220P
C6027 220P
C6028 220P
R6030 10K
TEST
R6032 1500
C6005 150P
IC6001 MN188166VDU
R/S/F : FF Ⓗ
CUE/REV/FF/ REW Ⓛ
A MODE
LINE INPUT
TV/VTR
SENSOR LED
V.EE
A.EE
X7
MOTOR V
POWER OFF
LA MUTE Ⓗ
CAP ON
FM MUTE Ⓗ
GND
RESET
D.REC
D.A REC
D.FM REC
FLYING ERASE
FULL ERASE
STOP/STILL/SLOW
SOLENOIDE
GND
RECORD Ⓗ
AUDIO DUBBING
INSERT RECORD
TRICK Ⓛ
PLAY ON Ⓛ
RVS (LED)
JOG/REEL SELECT
FWD (LED)
+5V
+5V
+5V
TEST/SERVICE
CAS SW
T PHOTO
S PHOTO
SHUTTLE1
SHUTTL E2
DEW
SUB SW
GND
GND
SCK SLOT
SUB MOTOR FWD : ON
TAPE END Ⓗ : FWD
Vref 1 : READ Ⓛ
Vref 2 : WRITE Ⓗ
S.DATA OUT
S.DATA IN
S.CLOCK
NC
S.DATA OUT
S.DATA IN
SCK
COS
CIS
HC
CCD
V.DETECT :EJECT
S CHARGE
DOOR OPEN Ⓛ
CTL/FG SELECT
JOG1 : REEL(S)
JOG2 : REEL(T)
HEAD SW
CTL : FG
CTL
EXT CTL
X'TAL
X'TAL
GND
GND
VASS (LED)
RENUM (LED)
EDIT TRIG Ⓛ
PRE ROLL OUT
P.ROLL Ⓗ : PLAY
S.TAB : STOP2
PAL/STOP1
R6095 270
R6096 270
R6097 270
R6098 270
R6083 680
R6136 5600
R6081 10K
R6082 10K
R6080 680
C6011 1000P
QR6017 UN2213 (S.DATA INV)
C6023 270P
C6022 270P
C6021 270P
C6020 270P
C6010 1000P
R6137 5600
QR6016 UN2213 (S.DATA INV)
R6039 1800
R6084 2200
R6040 1800
R6078 100
R6077 100
D6011 MA165
D6009 MA165
(REG 12V)
D6012 MA165
R6079 10K
D6010 MA165
R6076 47K
QR6019 UN2213 (INV.)
C6046 0.33
R6115 47K
C6037 33P
X6001 VSX0306
C6038 33P
IC6007 MC14519BF
VDD
(B)
(A)
GND
QR6029 UN2212 (RENUMBER : ON)
R6130 470
QR6028 UN2212 (VASS : ON)
R6131 470
R6119 10K
R6120 10K
R6121 10K
R6122 10K
R6071 33K
R6072 47K
R6073 33K
R6074 33K
R6075 33K
R6113 33K
9
10
11
12
13
14


P7404 (TO TIMER)
SHUTTLE Ⓛ
SHUTTLE Ⓗ
SYSTEM CTL 5V
JOG 1
JOG 2
REV LED Ⓛ
STILL LED Ⓛ
FWD LED Ⓛ
P4004
GND
FULL ERASE 12V
C6016
0.01
1893 (SOLENOIDE DRIVE)
R6020
15
(2W)
D6005
MA165
R6123
1800
R6021
10K
C6018
0.01
QR6014
UN2113
(SENSOR LED Ⓛ : ON)
Q6008
2SD636
(SENSOR DRIVE)
R6023
22
D6025
AK04
C6030
16V2200
D6001
MA165
P6002
T. PHOTO
S. PHOTO
CASSETTE SW
GND
R6042
3300
R6043
22K
R6044
22K
R6108
4700
R6107
4700
R6106
270
R6109
270
D6021
MA165
D6022
MA165
R6015
N2213
APE END Ⓗ : ON)
D6017
MA4091M
R6034
10K
D6032
MA165
C6033
16V33
Q6011
2SC1856
(REV MOTOR DRIVE REG)
C6006
16V47
C6007
0.01
R6039
1800
R6036
1000
R6035
0.9(1/4W)
R6038
4700
R6040
1800
DRIVE MODE SELECT LOGIC
Vref
3 PHASE DRIVE
C6008
0.022
IC6005
AN6609N
S-VHS TAPE Ⓛ
S-VHS TAPE Ⓛ
N SW 5V
UNREG 45V
UNREG 14V
MOTOR GND
REG. 12.3V
SYSTEM CTL 5V
REV. MOTOR ⊕
REV. MOTOR ⊖
P6001
PLAY PO.
S-VHS TAPE Ⓛ
GND
SOLENOID ⊖
EJECT PO.
SOLENOID ⊕
STOP PO.
STOP 2 PO.
REEL PULSE (T)
SUB SW
S TAB (L)
PHOTO SENSOR +B
REEL PULSE (S)
MOTOR GND
SENSOR LED
D6015
MA165
R6094
270
QR6024
UN2113
(CIS Ⓛ : ON)
D6037
MA156
D6038
MA156
S.CLOCK
S.DATA
COS
CIS
HC
CCD
H SW
SPEED CHG Ⓗ
PREROLL Ⓗ
EDIT TRIG Ⓛ
R6085
180K
R6089
27K
R6093
27K
R6088
180K
R6090
10K
D6016
MA165
Q6014
2SD601
(LC CTL Ⓗ : ON)
QR6020
UN2213
(PLAY Ⓛ : OFF)
R6087
10K
IC6006
LM393PS
R6092
8200
C6015
0.001
R6091
150K
D6027
MA4075M
QR6027
UN2213
(INV.)
R6111
1K
D6033
MA723
R6114
120K
C6034
6V100
D6029
MA154WK
QR6025
UN2212
(INV.)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART
SCHEMATIC DIAGRAM F
ORDER A PART, PLEASE

14 | 15 | 16 | 17 | 18 | 19


P7404 (TO TIMER)
SHUTTLE Ⓛ 1 P7506-1
SHUTTLE Ⓗ 2 P7506-2
SYSTEM CTL 5V 3 P7506-3
JOG 1 4 P7506-4
JOG 2 5 P7506-5
REV LED Ⓛ 6 P7506-6
STILL LED Ⓛ 7 P7506-7
FWD LED Ⓛ 8 P7506-8
P4004
GND 1
FULL ERASE 12V 2
C6016 0.01
P1502
1 GND
2 F.ERASE 12V
L1401 100μ
C1401 16V10
T1401 EIQ7QF012Q
FE HEAD
33K
C1403 0.033
Q1401 2SD636
C1402 4700P
0.01
CR1401 EXED103Z333T
FE HEAD C.B.A. (VEP00K88C)
P6002
T. PHOTO 1
S. PHOTO 2
CASSETTE SW 3
GND 4
R6043 22K
R6044 22K
R6108 4700
R6107 4700
R6106 270
R6109 270
S-VHS TAPE Ⓛ A
S-VHS TAPE Ⓛ V
N SW 5V P
UNREG 45V P
UNREG 14V P
MOTOR GND P
REG. 12.3V P
SYSTEM CTL 5V P
REV. MOTOR ⊕ SE
REV. MOTOR ⊖ SE
P6001
PLAY PO. 1
S-VHS TAPE Ⓛ 2
GND 3
SOLENOID ⊖ 4
EJECT PO. 5
SOLENOID ⊕ 6
STOP PO. 7
STOP 2 PO. 8
REEL PULSE (T) 9
SUB SW 10
S TAB (L) 11
PHOTO SENSOR +B 12
REEL PULSE (S) 13
MOTOR GND 14
SENSOR LED 15
R6094 270
S.CLOCK SE
S.DATA SE
COS SE
CIS SE
HC SE
CCD SE
H SW SE
SPEED CHG Ⓗ SE
PREROLL Ⓗ V
EDIT TRIG Ⓛ V
P1508
6 T. PHOTO
5 S. PHOTO
4 CASSETTE SW
3 GND
2 GND
1 S. PHOTO
C1502 0.001
Q1502 PN150
R1503 2200
CASSETTE SW
PHOTO TR. (T) C.B.A.
P1507
2 S. PHOTO
1 GND
C1501 0.001
Q1501 PN150
PHOTO TR. (S) C.B.A. (VEK3578)
MODE SW
P1504
15 PLAY PO.
14 S-VHS TAPE Ⓛ
13 GND
12 SOLENOID ⊖
11 EJECT PO.
10 SOLENOID ⊕
9 STOP PO.
8 STOP 2 PO.
7 REEL PULSE (T)
6 SUB SW
5 S. TAB (L)
4 PHOTO SENSOR +B
3 REEL PULSE (S)
2 MOTOR GND
1 SENSOR LED
SOLENOID
S-VHS CASSETTE SW
SOLENOID
REV DET. SW
IC1502 ON2170
IC1501 ON2170
SAFETY TAB SW
SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3825)

TY.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

19 20 21 22 23

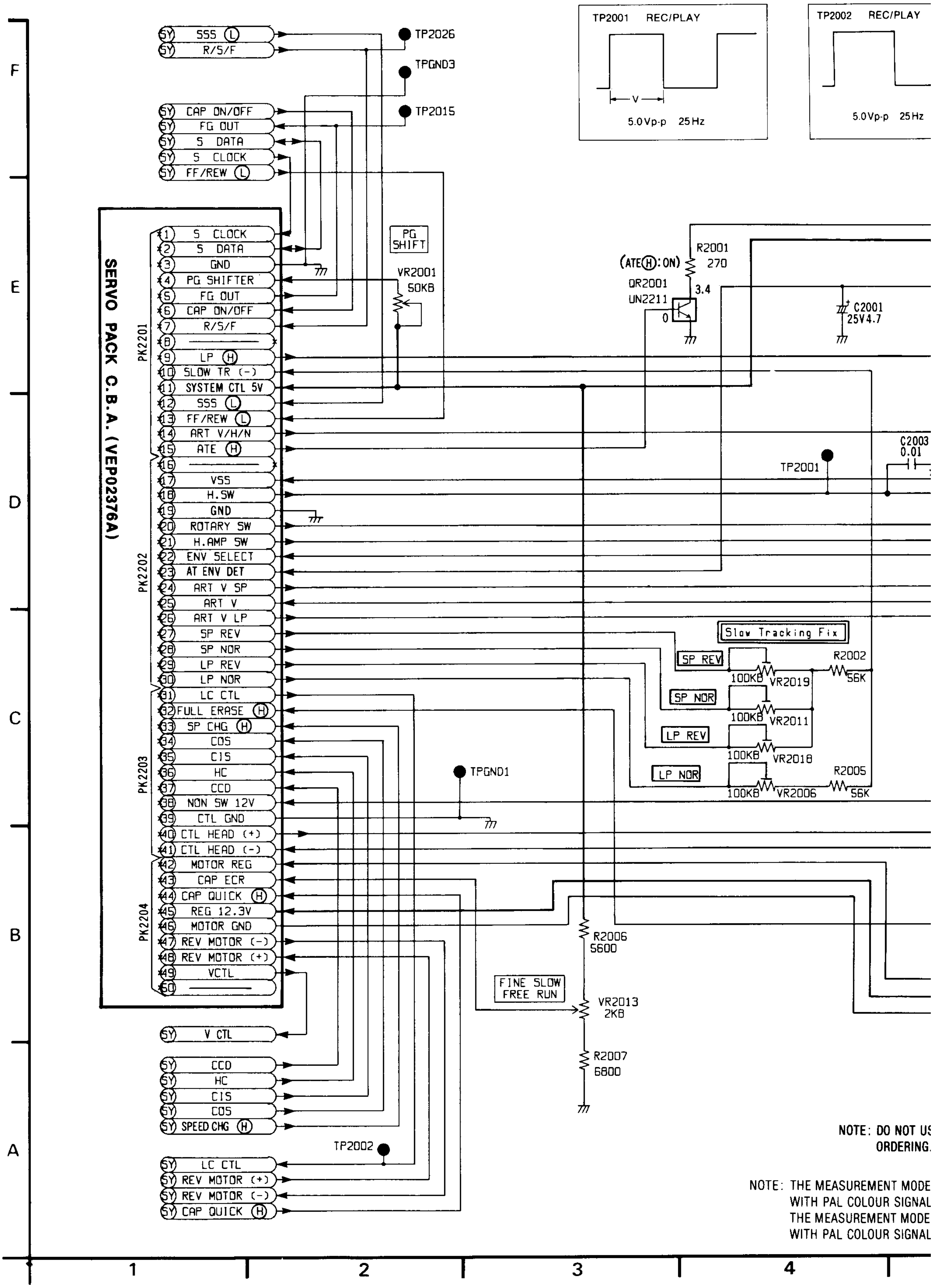
SYSTEM CONTROL ICs DC VOLTAGE CHART (S-VHS: SP MODE)

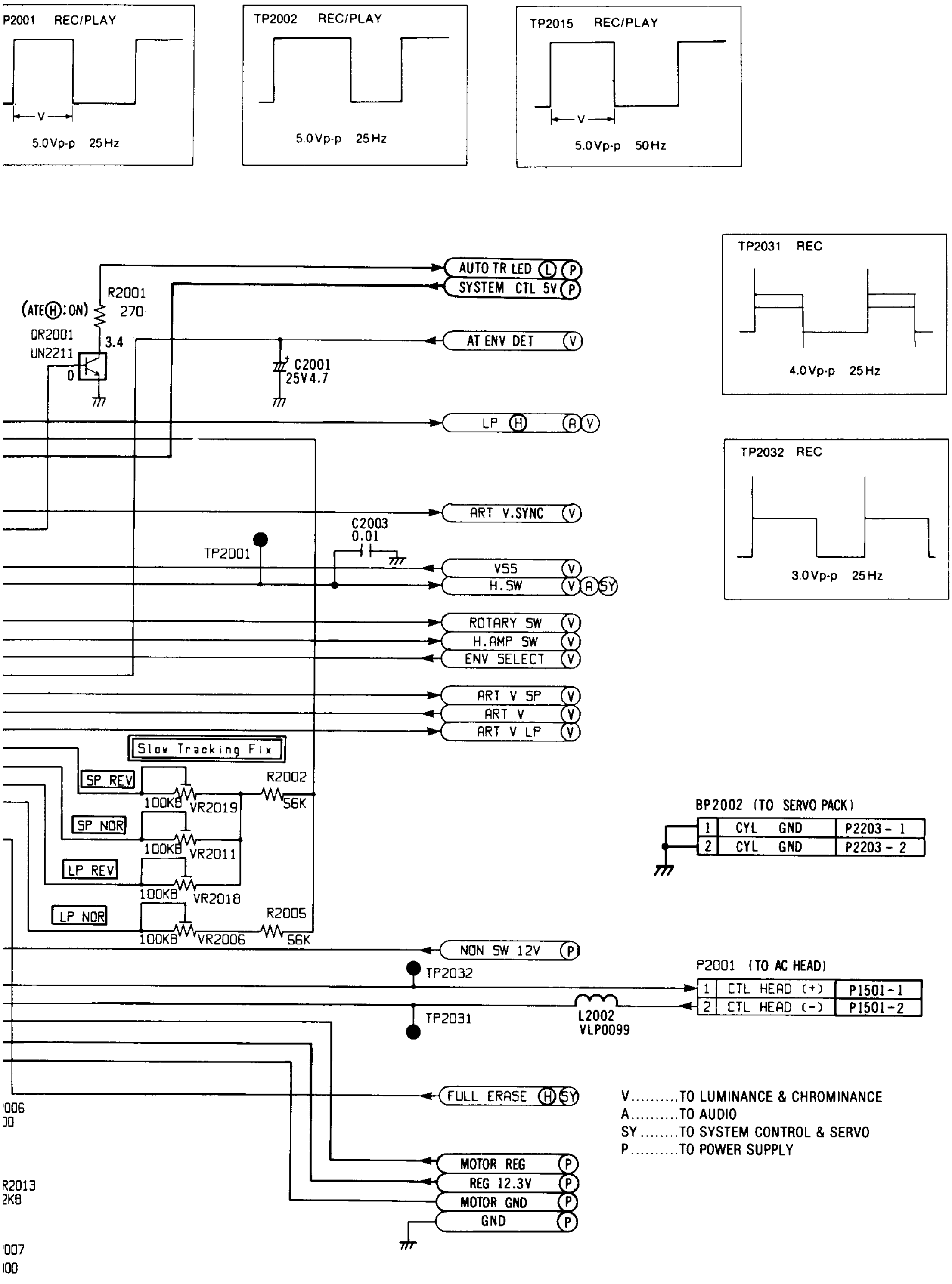
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.1	4.9	0	4.9	0	4.4	0.1	4.9	0	4.9	0	0	0	0	0	4.6	0.1	0	0	0
PLAY	0	4.9	0	4.9	0	4.4	4.9	0	0	0	0	0	4.9	0	0	4.6	0.1	0	0	0
FF	0	0	0	4.9	0	4.4	0.1	4.9	4.9	4.9	0	0	4.9	0	0	5.0	0.1	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	4.8	4.8	0	5.1	0.1	5.1	—	—	0	0	4.9	0	0	4.9	0	1.0
PLAY	0	0	0	0	4.8	4.8	3.0	2.6	3.0	3.4	—	—	0	0	4.9	0	0	4.9	0	0
FF	0	0	0	0	2.6	2.5	0	2.1	4.4	5.1	—	—	0	0	4.9	0	0	4.9	0	1.0
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.0	3.9	4.9	4.9	4.9	4.9	4.9	4.9	0.4	0.1	0	4.6	4.5	0.2	4.9	4.9	4.9	0	3.9	0
PLAY	1.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	0.4	0.2	0	4.6	4.4	0.2	4.9	4.9	4.9	0	3.9	0
FF	1.0	3.9	4.9	4.9	4.9	4.9	4.9	4.9	0.4	0.1	0	4.6	4.5	0.2	4.9	4.9	4.9	0	3.9	0
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.9	0	0	0	3.3	4.6	4.6	4.7	2.0	4.0	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
PLAY	3.8	0	0	0	3.3	4.6	4.6	4.7	2.0	4.0	4.9	4.9	4.9	0	0	0	0.1	4.9	0	0
FF	3.9	0	0	0	3.3	4.6	4.6	4.7	2.0	4.0	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
REF. NO.	IC6001										IC6002									
MODE	81	82	83	84							1	2	3							
STOP	0	0	4.9	4.9							4.6	4.9	0							
PLAY	0	0	4.9	4.9							4.6	4.9	0							
FF	0	0	4.9	4.9							5.0	5.0	0							
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	5.1	0	5.1	0	5.1	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
PLAY	2.7	0	5.1	2.4	3.6	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
FF	2.4	0	5.1	2.2	2.8	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.8	4.8	5.1	0.2	2.0	3.5	5.0	3.5	4.5	2.6	1.4	0	0	0						
PLAY	4.8	4.8	5.1	3.0	2.0	3.5	4.7	3.5	4.9	2.9	2.0	0	4.8	4.8						
FF	2.6	2.6	5.1	1.5	1.7	3.5	4.7	3.5	4.8	1.4	1.7	0	2.5	2.6						
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	7.8	8.1	8.1	1.2	5.9	5.9	0	5.9	8.2	8.2	8.2	0	7.0	4.9	4.9	0				
PLAY	7.8	8.1	8.1	1.2	5.9	5.9	0	5.9	8.3	8.3	8.3	0	7.0	4.9	4.9	0				
FF	7.8	8.1	8.1	1.2	5.9	5.9	0	5.9	8.3	8.3	8.3	0	7.0	4.9	4.9	0				
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8												
STOP	5.1	0	0.7	0	0	2.9	0.1	5.1												
PLAY	3.0	1.1	0.7	0	1.0	2.9	0.1	5.1												
FF	5.1	0	0.7	0	0	2.9	0.1	5.1												
REF. NO.	IC6007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0.1	4.9	0.5	0	4.9	4.9	4.9	0	1.0	4.9	3.9	1.0	1.0	0	4.9	4.9				
PLAY	0.1	4.9	0.5	4.9	4.9	4.9	4.9	0	1.0	4.9	4.9	1.0	0	3.8	0	4.9				
FF	0.1	4.9	0.5	0	4.9	4.9	4.9	0	1.2	4.9	3.6	1.0	1.0	3.9	4.9	4.9				

SYSTEM CONTROL TRs DC VOLTAGE CHART (S-VHS: SP MODE)

REF. NO.	Q6002			Q6003			Q6004			Q6006			Q6007			Q6008		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	12.2	11.5	12.2	0.2	12.2	12.2	0	12.2	13.5	13.5	5.3	0	13.5	0	0.6	13.5	0.4
PLAY	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0	12.2	13.4	13.4	5.2	0	13.4	0	0.6	13.4	0.4
FF	12.2	12.2	11.5	12.2	0.2	12.2	12.2	0	12.2	13.5	13.5	5.3	0	13.5	0	0.6	13.5	0.6
REF. NO.	Q6011			Q6012			Q6013			Q6014			Q6015			Q6017		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	8.2	13.5	9.4	4.9	5.0	5.7	0	0	0.7	0	0	0.6	−0.1	4.9	0	0	0.1	0.7
PLAY	8.3	13.4	9.4	4.9	5.0	5.7	0	0	0.7	0	1.2	0.4	−0.1	4.9	0	0	0.1	0.7
FF	8.3	13.5	9.4	4.9	5.0	5.7	0	0	0.7	0	0	0.4	−0.1	4.9	0	0	0.1	0.7
REF. NO.	QR6003			QR6004			QR6005			QR6006			QR6007			QR6008		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	12.2	0	0	12.2	0	0	3.4	0	0	3.4	0	0	5.1	0.6	0	3.6	0
PLAY	0	12.2	0	0	12.2	0	0	3.4	0	0	3.4	0	0	5.0	0.6	0	3.5	0
FF	0	12.2	0	0	12.2	0	0	3.4	0	0	3.4	0	0	5.1	0.6	0	3.6	0
REF. NO.	QR6009			QR6010			QR6011			QR6013			QR6014			QR6015		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	3.3	0	3.3	0.6	0	3.6	0	5.1	0	4.9	5.1	0.5	4.4	0	0.1	4.0
PLAY	0	0	3.3	0	3.3	0.6	0	3.6	0	5.1	0	4.9	5.1	0.5	4.4	0	0.1	4.0
FF	0	0	3.3	0	3.3	0.6	0	3.6	0	5.1	0	4.9	5.1	0.5	4.4	0	0.1	4.0
REF. NO.	QR6016			QR6017			QR6018			QR6019			QR6020			QR6021		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0.4	0.1	0	4.5	0.3	5.1	5.0	0	0	1.0	3.9	0	0	4.9	5.1	1.1	4.9
PLAY	0	0.4	0.2	0	4.5	0.2	5.1	5.0	0	0	1.0	3.8	0	1.0	0.1	5.1	1.0	4.9
FF	0	0.4	0.1	0	4.5	0.2	5.1	5.0	0	0	1.2	3.9	0	0	4.9	5.1	5.0	0
REF. NO.	QR6022			QR6024			QR6025			QR6027			QR6028			QR6029		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	1.1	0	4.6	4.9	0	4.9	0	4.9	0.1	0	2.5	0	0	3.4	0	0	3.4	0
PLAY	1.0	0	4.6	4.9	0	4.9	0	4.9	0.1	0	2.6	0	0	3.4	0	0	3.5	0
FF	5.0	0	5.0	4.9	0	4.9	0	4.9	0.1	0	2.5	0	0	3.4	0	0	3.5	0
REF. NO.	QR6030			QR6031														
MODE	E	C	B	E	C	B												
STOP	0	0.2	4.5	3.9	4.7	0.2												
PLAY	0	0.2	4.6	3.8	4.7	0.2												
FF	0	0.3	4.5	3.9	4.7	0.2												

3-10. SERVO SCHEMATIC DIAGRAM


TP2001 REC/PLAY
V
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
F
E
D
C
B
A
1
2
3
4
5Y SSS L
5Y R/S/F
TP2026
TPGND3
TP2015
5Y CAP ON/OFF
5Y FG OUT
5Y S DATA
5Y S CLOCK
5Y FF/REW L
SERVO PACK C.B.A. (VEP02376A)
PK2201
PK2202
PK2203
PK2204
1 S CLOCK
2 S DATA
3 GND
4 PG SHIFTER
5 FG OUT
6 CAP ON/OFF
7 R/S/F
8
9 LP H
10 SLOW TR (-)
11 SYSTEM CTL 5V
12 SSS L
13 FF/REW L
14 ART V/H/N
15 ATE H
16
17 VSS
18 H.SW
19 GND
20 ROTARY SW
21 H.AMP SW
22 ENV SELECT
23 AT ENV DET
24 ART V SP
25 ART V
26 ART V LP
27 SP REV
28 SP NOR
29 LP REV
30 LP NOR
31 LC CTL
32 FULL ERASE H
33 SP CHG H
34 COS
35 CIS
36 HC
37 CCD
38 NON SW 12V
39 CTL GND
40 CTL HEAD (+)
41 CTL HEAD (-)
42 MOTOR REG
43 CAP ECR
44 CAP QUICK H
45 REG 12.3V
46 MOTOR GND
47 REV MOTOR (-)
48 REV MOTOR (+)
49 VCTL
50
PG SHIFT
VR2001 50KB
(ATE H: ON)
QR2001 UN2211
0
R2001 270
3.4
C2001 25V4.7
C2003 0.01
TP2001
Slow Tracking Fix
SP REV
SP NOR
LP REV
LP NOR
100KB VR2019
100KB VR2011
100KB VR2018
100KB VR2006
R2002 56K
R2005 56K
TPGND1
R2006 5600
FINE SLOW FREE RUN
VR2013 2KB
R2007 6800
5Y V CTL
5Y CCD
5Y HC
5Y CIS
5Y COS
5Y SPEED CHG H
TP2002
5Y LC CTL
5Y REV MOTOR (+)
5Y REV MOTOR (-)
5Y CAP QUICK H
NOTE: DO NOT US
ORDERING.
NOTE: THE MEASUREMENT MODE
WITH PAL COLOUR SIGNAL
THE MEASUREMENT MODE
WITH PAL COLOUR SIGNAL


P2001 REC/PLAY
V
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
TP2015 REC/PLAY
V
5.0Vp-p 50Hz
TP2031 REC
4.0Vp-p 25Hz
TP2032 REC
3.0Vp-p 25Hz
AUTO TR LED L P
SYSTEM CTL 5V P
(ATE H : ON)
R2001
270
QR2001
UN2211
3.4
0
AT ENV DET V
C2001
25V4.7
LP H A V
ART V.SYNC V
C2003
0.01
TP2001
VSS V
H.SW V A SY
ROTARY SW V
H.AMP SW V
ENV SELECT V
ART V SP V
ART V V
ART V LP V
Slow Tracking Fix
SP REV
R2002
100KB
VR2019
56K
SP NOR
100KB
VR2011
LP REV
100KB
VR2018
LP NOR
R2005
100KB
VR2006
56K
NON SW 12V P
TP2032
TP2031
L2002
VLP0099
BP2002 (TO SERVO PACK)
1 CYL GND P2203-1
2 CYL GND P2203-2
P2001 (TO AC HEAD)
1 CTL HEAD (+) P1501-1
2 CTL HEAD (-) P1501-2
FULL ERASE H SY
MOTOR REG P
REG 12.3V P
MOTOR GND P
GND P
'006
00
R2013
2K8
'007
00

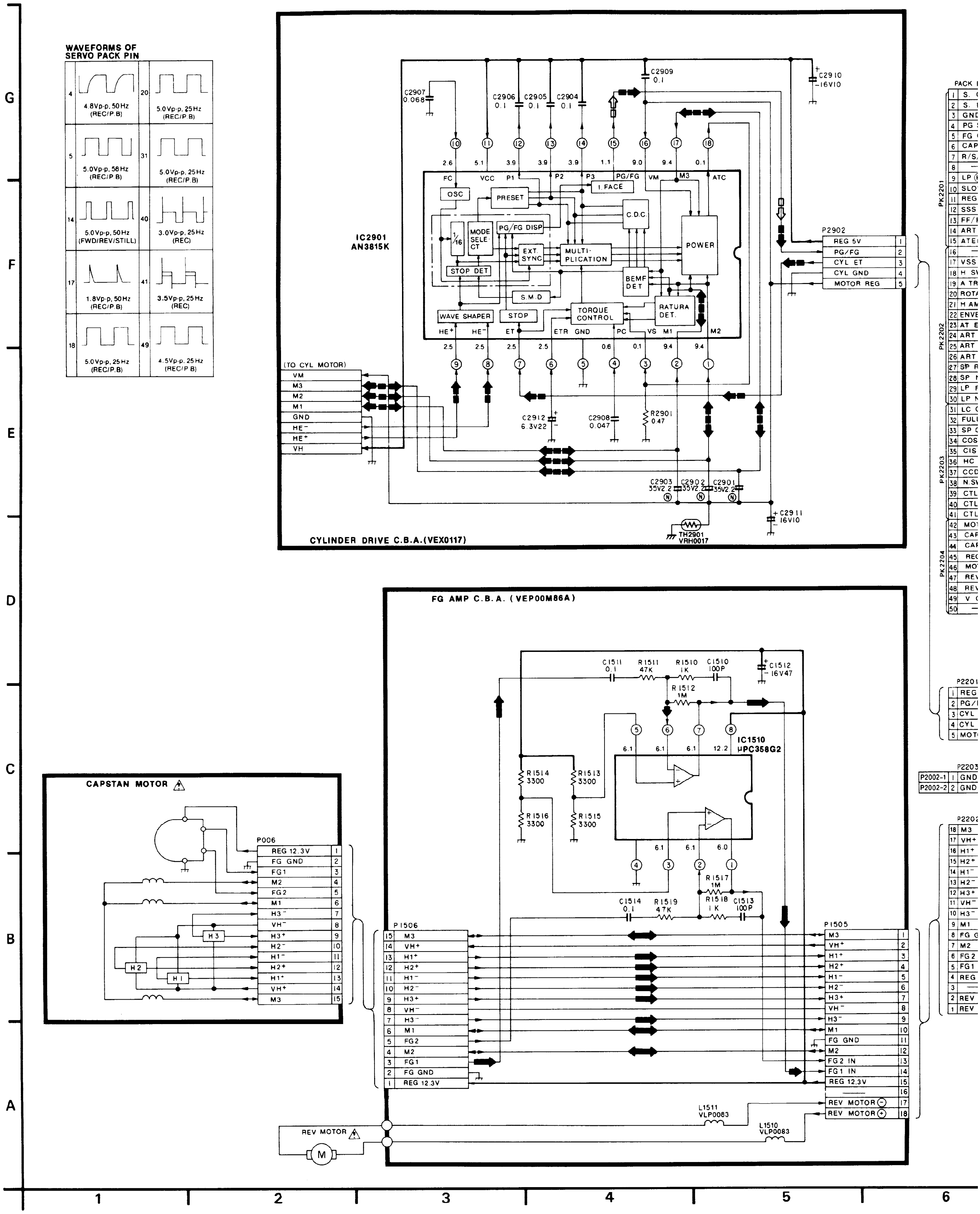
V..........TO LUMINANCE & CHROMINANCE
A..........TO AUDIO
SY........TO SYSTEM CONTROL & SERVO
P..........TO POWER SUPPLY

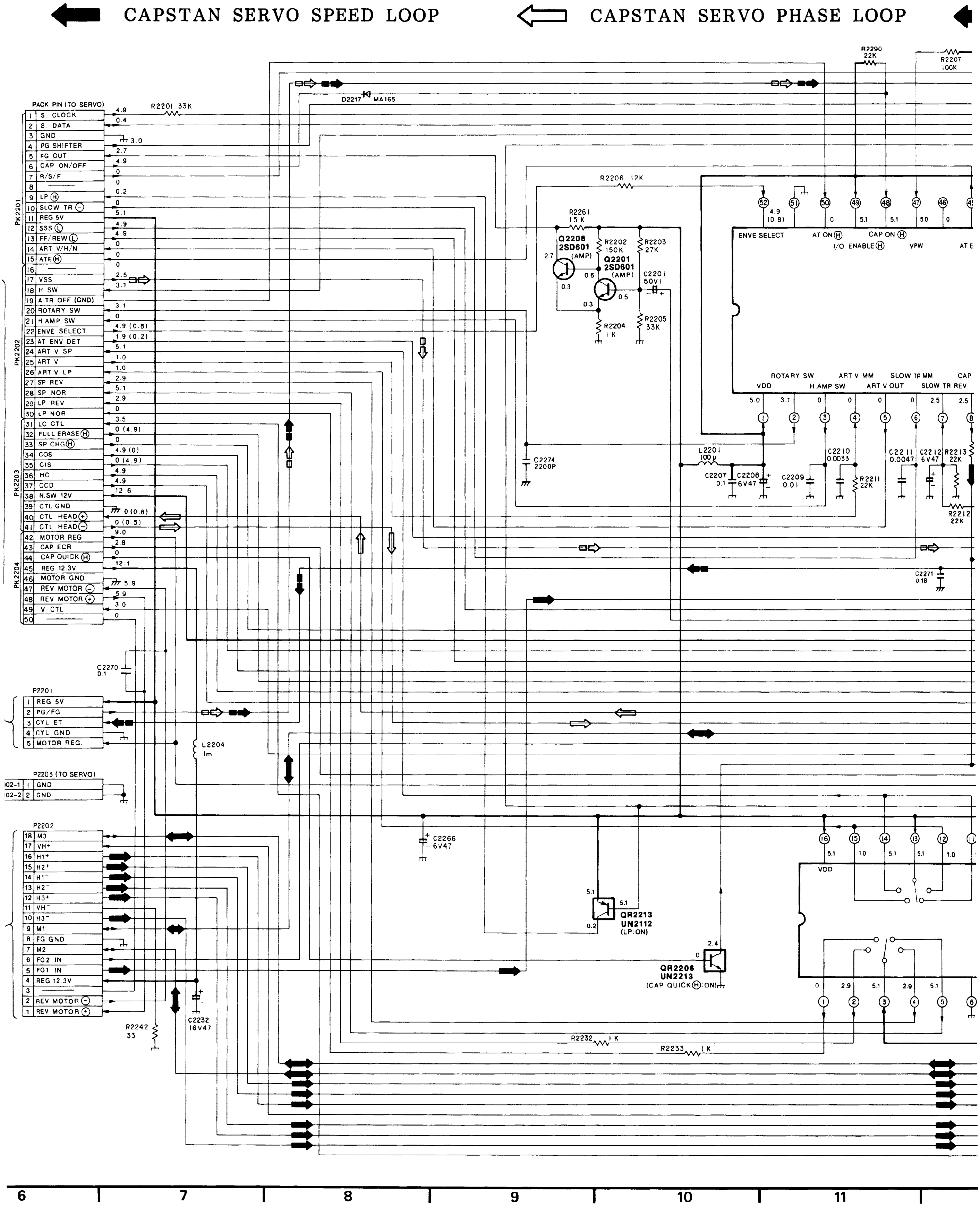
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

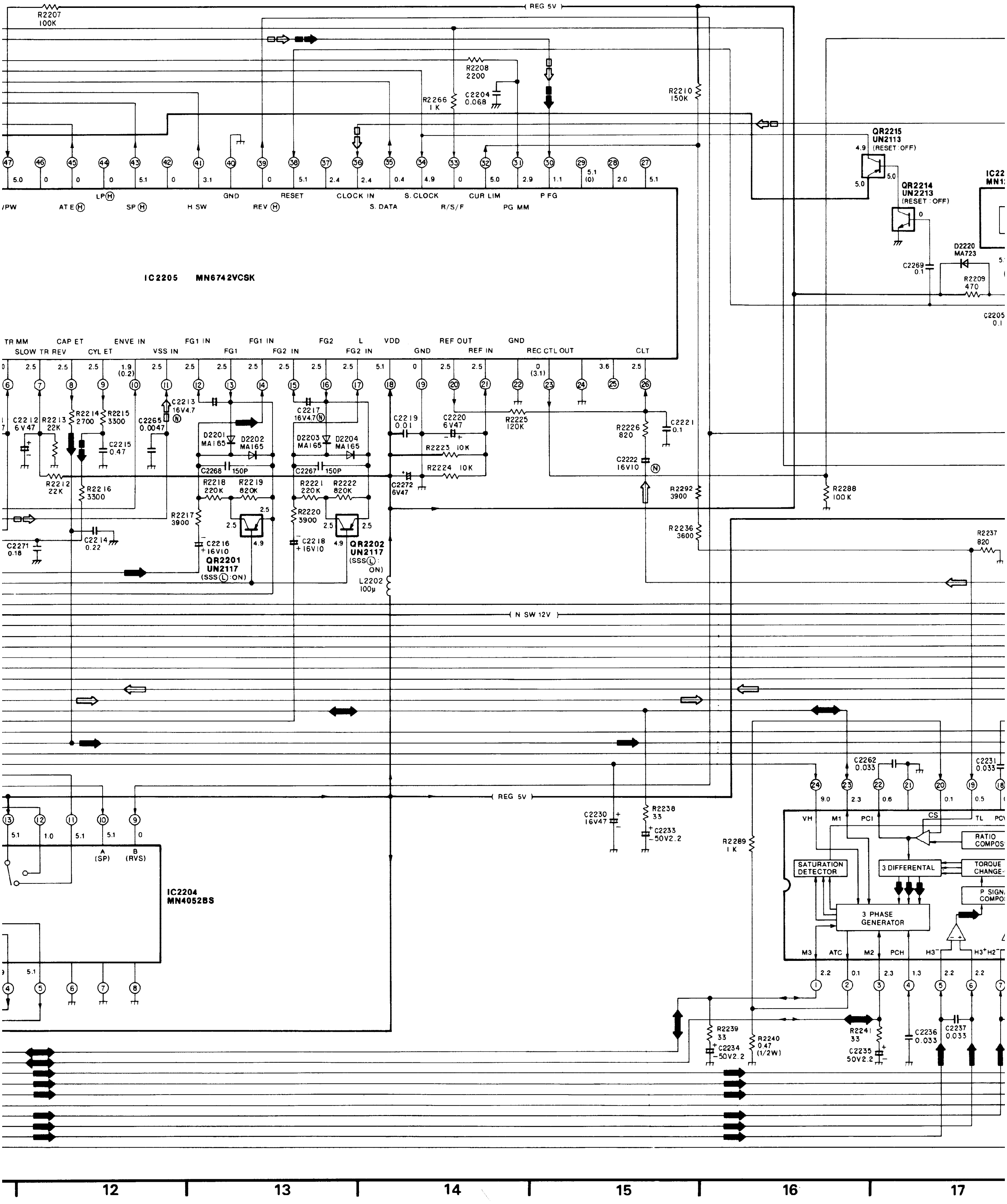
4 5 6 7

3-12. SERVO PACK SCHEMATIC DIAGRAM

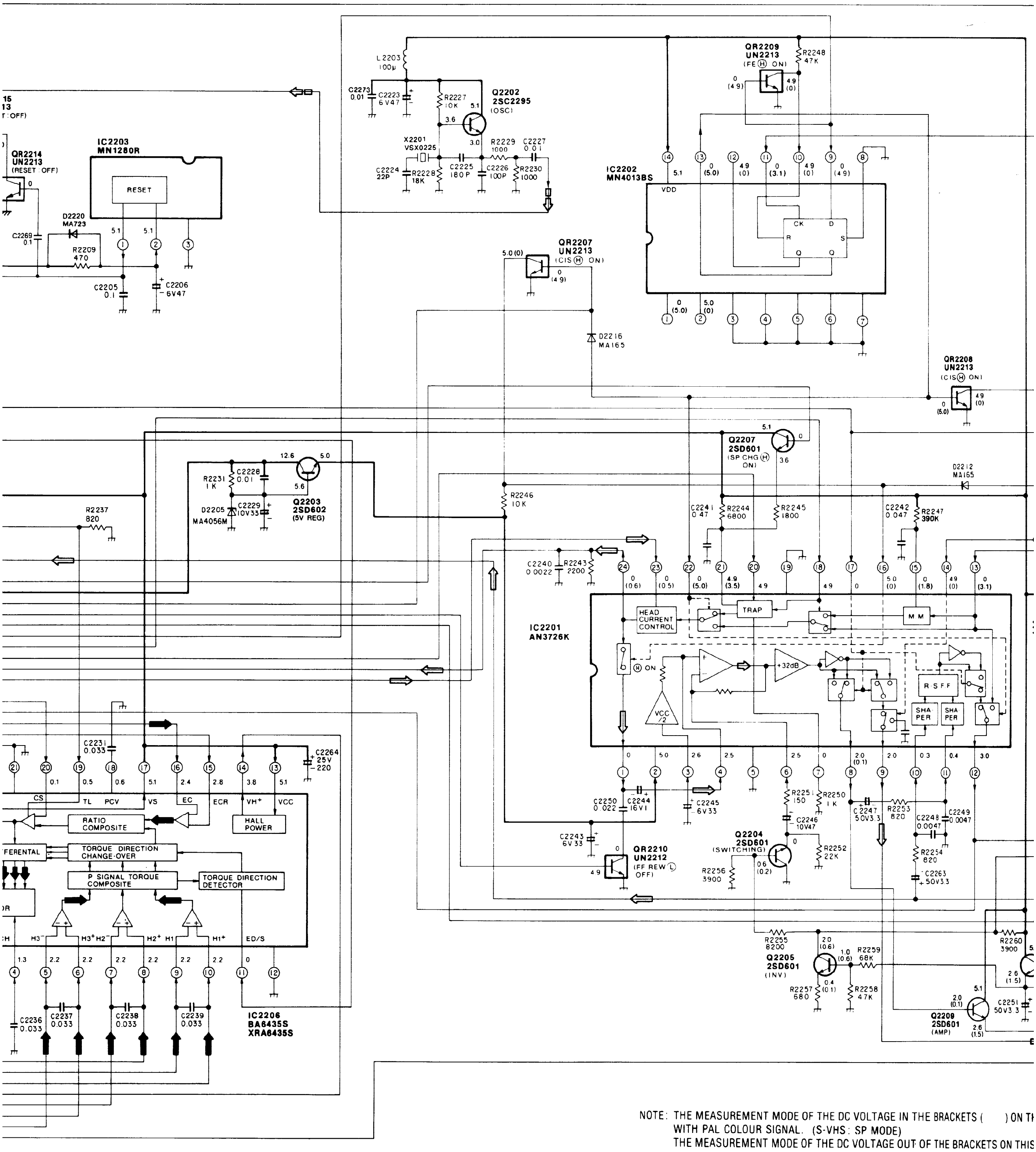

WAVEFORMS OF SERVO PACK PIN
4 4.8Vp-p, 50Hz (REC/P.B)
20 5.0Vp-p, 25Hz (REC/P.B)
5 5.0Vp-p, 58Hz (REC/P.B)
31 5.0Vp-p, 25Hz (REC/P.B)
14 5.0Vp-p, 50Hz (FWD/REV/STILL)
40 3.0Vp-p, 25Hz (REC)
17 1.8Vp-p, 50Hz (REC/P.B)
41 3.5Vp-p, 25Hz (REC)
18 5.0Vp-p, 25Hz (REC/P.B)
49 4.5Vp-p, 25Hz (REC/P.B)
IC2901 AN3815K
FC VCC P1 P2 P3 PG/FG VM M3 ATC
OSC PRESET I. FACE C.D.C. POWER
1/16 MODE SELECT PG/FG DISP EXT. SYNC MULTI-PLICATION
STOP DET BEMF DET S.M.D RATURA DET.
WAVE SHAPER STOP TORQUE CONTROL
HE+ HE− ET ETR GND PC VS M1 M2
C2907 0.068 C2906 0.1 C2905 0.1 C2904 0.1 C2909 0.1 C2910 16V10
C2912 6.3V22 C2908 0.047 R2901 0.47
C2903 35V2.2 C2902 35V2.2 C2901 35V2.2 C2911 16V10
TH2901 VRH0017
(TO CYL MOTOR) VM M3 M2 M1 GND HE− HE+ VH
P2902 REG 5V PG/FG CYL ET CYL GND MOTOR REG
CYLINDER DRIVE C.B.A.(VEX0117)
FG AMP C.B.A. (VEP00M86A)
IC1510 μPC358G2
C1511 0.1 R1511 47K R1510 1K C1510 100P C1512 16V47 R1512 1M
R1514 3300 R1513 3300 R1516 3300 R1515 3300
C1514 0.1 R1519 47K R1517 1M R1518 1K C1513 100P
CAPSTAN MOTOR
H1 H2 H3
P006 REG 12.3V FG GND FG1 M2 FG2 M1 H3− VH− H3+ H2− H1− H2+ H1+ VH+ M3
P1506 M3 VH+ H1+ H2+ H1− H2− H3+ VH− H3− M1 FG2 M2 FG1 FG GND REG 12.3V
P1505 M3 VH+ H1+ H2+ H1− H2− H3+ VH− H3− M1 FG GND M2 FG2 IN FG1 IN REG 12.3V REV MOTOR⊖ REV MOTOR⊕
L1511 VLP0083 L1510 VLP0083
REV MOTOR M
PACK PK2201 PK2202 PK2203 PK2204
P2201 P2203 P2202 P2002-1 P2002-2
G F E D C B A
1 2 3 4 5 6


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
PACK PIN (TO SERVO)
PK2201
1 S. CLOCK 4.9
2 S. DATA 0.4
3 GND 3.0
4 PG SHIFTER 2.7
5 FG OUT 4.9
6 CAP ON/OFF 0
7 R/S/F 0
8 ———
9 LP Ⓗ 0.2
10 SLOW TR ⊖ 0
11 REG 5V 5.1
12 SSS Ⓛ 4.9
13 FF/REW Ⓛ 4.9
14 ART V/H/N 0
15 ATE Ⓗ 0
PK2202
16 ——— 0
17 VSS 2.5
18 H SW 3.1
19 A TR OFF (GND)
20 ROTARY SW 3.1
21 H AMP SW 0
22 ENVE SELECT 4.9 (0.8)
23 AT ENV DET 1.9 (0.2)
24 ART V SP 5.1
25 ART V 1.0
26 ART V LP 1.0
27 SP REV 2.9
28 SP NOR 5.1
29 LP REV 2.9
30 LP NOR 0
PK2203
31 LC CTL 3.5
32 FULL ERASE Ⓗ 0 (4.9)
33 SP CHG Ⓗ 0
34 COS 4.9 (0)
35 CIS 0 (4.9)
36 HC 4.9
37 CCD 4.9
38 N.SW 12V 12.6
39 CTL GND
40 CTL HEAD ⊕ 0 (0.6)
41 CTL HEAD ⊖ 0 (0.5)
PK2204
42 MOTOR REG 9.0
43 CAP ECR 2.8
44 CAP QUICK Ⓗ 0
45 REG 12.3V 12.1
46 MOTOR GND
47 REV MOTOR ⊖ 5.9
48 REV MOTOR ⊕ 5.9
49 V CTL 3.0
50 ——— 0
R2201 33K
D2217 MA165
R2206 12K
R2261 15 K
Q2208 2SD601 (AMP)
2.7
0.3
R2202 150K
Q2201 2SD601 (AMP)
0.6
0.3
0.5
R2203 27K
C2201 50V1
R2204 1 K
R2205 33K
R2290 22K
R2207 100K
52 4.9 (0.8)
51
50 0
49 5.1
48 5.1
47 5.0
46 0
ENVE SELECT
AT ON Ⓗ
I/O ENABLE Ⓗ
CAP ON Ⓗ
VPW
AT E
ROTARY SW
VDD
H.AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR REV
CAP
1 5.0
2 3.1
3 0
4 0
5 0
6 0
7 2.5
8 2.5
L2201 100µ
C2207 0.1
C2208 6V47
C2209 0.01
C2210 0.0033
R2211 22K
C2211 0.0047
C2212 6V47
R2213 22K
R2212 22K
C2274 2200P
C2271 0.18
C2270 0.1
P2201
1 REG 5V
2 PG/FG
3 CYL ET
4 CYL GND
5 MOTOR REG.
L2204 1m
P2203 (TO SERVO)
02-1 1 GND
02-2 2 GND
P2202
18 M3
17 VH+
16 H1+
15 H2+
14 H1−
13 H2−
12 H3+
11 VH−
10 H3−
9 M1
8 FG GND
7 M2
6 FG2 IN
5 FG1 IN
4 REG 12.3V
3 ———
2 REV MOTOR ⊖
1 REV MOTOR ⊕
R2242 33
C2232 16V47
C2266 6V47
QR2213 UN2112 (LP:ON)
5.1
5.1
0.2
QR2206 UN2213 (CAP QUICK Ⓗ:ON)
2.4
0
16 5.1
15 1.0
14 5.1
13 5.1
12 1.0
11
VDD
1 0
2 2.9
3 5.1
4 2.9
5 5.1
6
R2232 1 K
R2233 1 K
6
7
8
9
10
11

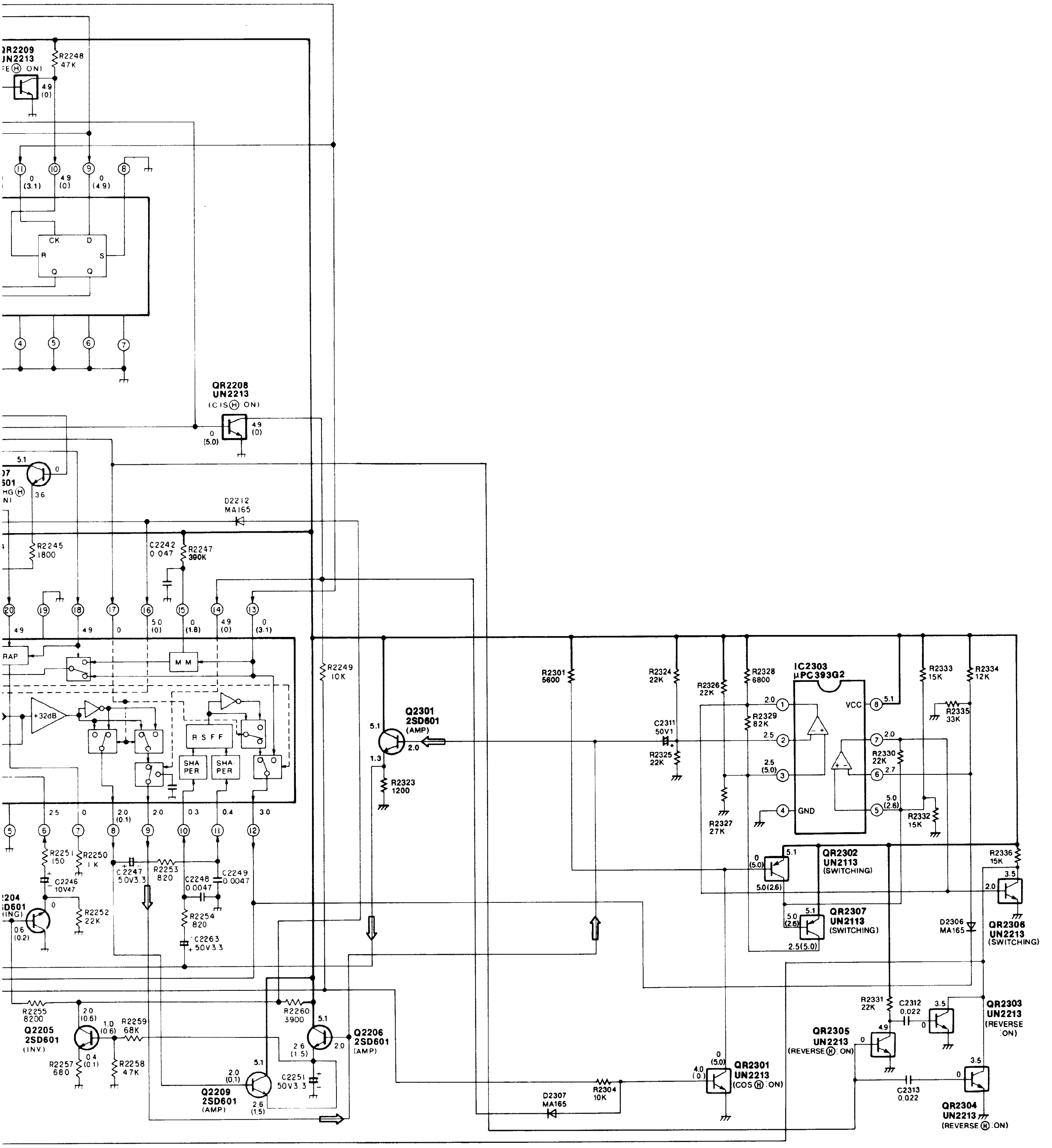
◀■ CYLINDER SERVO SPEED LOOP ⇦□ CYLINDER SERVO PHASE LOOP


REG 5V
R2207 100K
R2208 2200
R2266 1K
C2204 0.068
R2210 150K
QR2215 UN2113 (RESET: OFF)
QR2214 UN2213 (RESET: OFF)
D2220 MA723
C2269 0.1
R2209 470
C2205 0.1
IC22 MN1
LP(H)
GND
RESET
CLOCK IN
S. CLOCK
CUR LIM
PFG
/PW
AT E(H)
SP(H)
H SW
REV(H)
S. DATA
R/S/F
PG MM
IC2205 MN6742VCSK
TR MM
CAP ET
ENVE IN
FG1 IN
FG1 IN
FG2
L
VDD
REF OUT
GND
SLOW TR REV
CYL ET
VSS IN
FG1
FG2 IN
FG2 IN
GND
REF IN
REC CTL OUT
CLT
C2212 6V47
R2213 22K
R2214 2700
R2215 3300
C2265 0.0047
C2213 16V4.7
C2215 0.47
R2212 22K
R2216 3300
D2201 MA165
D2202 MA165
C2268 150P
R2218 220K
R2219 820K
R2217 3900
C2216 16V10
QR2201 UN2117 (SSS(L): ON)
C2217 16V4.7
D2203 MA165
D2204 MA165
C2267 150P
R2221 220K
R2222 820K
R2220 3900
C2218 16V10
QR2202 UN2117 (SSS(L): ON)
L2202 100μ
C2219 0.01
C2220 6V47
R2223 10K
R2224 10K
C2272 6V47
R2225 120K
R2226 820
C2221 0.1
C2222 16V10
R2292 3900
R2288 100K
R2236 3600
R2237 820
C2271 0.18
C2214 0.22
N SW 12V
REG 5V
IC2204 MN4052BS
A (SP)
B (RVS)
C2230 16V47
R2238 33
C2233 50V2.2
R2289 1K
C2262 0.033
C2231 0.033
VH
M1
PCI
CS
TL
SATURATION DETECTOR
3 DIFFERENTAL
RATIO COMPOS
TORQUE CHANGE
P SIGNAL COMPO
3 PHASE GENERATOR
M3
ATC
M2
PCH
H3⁻
H3⁺ H2⁻
R2239 33
C2234 50V2.2
R2240 0.47 (1/2W)
R2241 33
C2235 50V2.2
C2236 0.033
C2237 0.033
12
13
14
15
16
17

OOP


IC2203
MN1280R
RESET
QR2214
UN2213
(RESET : OFF)
D2220
MA723
R2209
470
C2269
0.1
C2205
0.1
C2206
6V47
L2203
100μ
C2273
0.01
C2223
6V47
R2227
10K
Q2202
2SC2295
(OSC)
X2201
VSX0225
C2224
22P
R2228
18K
C2225
180P
R2229
1000
C2226
100P
C2227
0.01
R2230
1000
QR2207
UN2213
(CIS Ⓗ ON)
D2216
MA165
QR2209
UN2213
(FE Ⓗ ON)
R2248
47K
IC2202
MN4013BS
VDD
CK
D
R
S
Q
QR2208
UN2213
(CIS Ⓗ ON)
Q2207
2SD601
(SP CHG Ⓗ ON)
D2212
MA165
R2231
1K
C2228
0.01
D2205
MA4056M
C2229
10V33
Q2203
2SD602
(5V REG)
R2237
820
R2246
10K
C2241
0.47
R2244
6800
R2245
1800
C2242
0.047
R2247
390K
C2240
0.0022
R2243
2200
IC2201
AN3726K
HEAD CURRENT CONTROL
TRAP
M M
Ⓗ ON
VCC/2
+32dB
R S F F
SHA PER
SHA PER
C2231
0.033
C2264
25V
220
CS
TL
PCV
VS
EC
ECR
VH+
VCC
RATIO COMPOSITE
HALL POWER
FERENTAL
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
H3-
H3+ H2-
H2+ H1
H1+
ED/S
C2236
0.033
C2237
0.033
C2238
0.033
C2239
0.033
IC2206
BA6435S
XRA6435S
C2250
0.022
C2244
16V1
C2245
6V33
C2243
6V33
QR2210
UN2212
(FF REW Ⓛ OFF)
R2251
150
R2250
1K
C2246
10V47
Q2204
2SD601
(SWITCHING)
R2252
22K
R2256
3900
C2247
50V3.3
R2253
820
C2248
0.0047
C2249
0.0047
R2254
820
C2263
50V33
R2255
8200
Q2205
2SD601
(INV)
R2259
68K
R2257
680
R2258
4.7K
R2260
3900
Q2209
2SD601
(AMP)
C2251
50V3.3
17
18
19
20
21
22

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON T
WITH PAL COLOUR SIGNAL. (S-VHS : SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THI
WITH PAL COLOUR SIGNAL. (S-VHS : SP MODE)


QR2209
UN2213
R2248
47K
QR2208
UN2213
(C I S Ⓗ ON)
D2212
MA165
R2245
1800
C2242
0.047
R2247
390K
R2249
10K
+32dB
M M
R S F F
SHA PER
R2251
150
R2250
1 K
C2246
10V47
R2252
22K
C2247
50V3.3
R2253
820
C2248
0.0047
C2249
0.0047
R2254
820
C2263
50V3.3
R2255
8200
Q2205
2SD601
(INV)
R2259
68K
R2257
680
R2258
47K
R2260
3900
Q2206
2SD601
(AMP)
Q2209
2SD601
(AMP)
C2251
50V3.3
Q2301
2SD601
(AMP)
R2323
1200
R2301
5600
R2324
22K
C2311
50V1
R2325
22K
R2326
22K
R2327
27K
R2328
6800
R2329
82K
IC2303
µPC393G2
VCC
GND
R2330
22K
R2333
15K
R2334
12K
R2335
33K
R2332
15K
R2336
15K
QR2302
UN2113
(SWITCHING)
QR2307
UN2113
(SWITCHING)
QR2306
UN2213
(SWITCHING)
D2306
MA165
R2331
22K
C2312
0.022
QR2303
UN2213
(REVERSE :ON)
QR2305
UN2213
(REVERSE Ⓗ : ON)
C2313
0.022
QR2304
UN2213
(REVERSE Ⓗ :ON)
QR2301
UN2213
(COS Ⓗ :ON)
D2307
MA165
R2304
10K

MENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
OUR SIGNAL. (S-VHS: SP MODE)
MENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
OUR SIGNAL. (S-VHS: SP MODE)

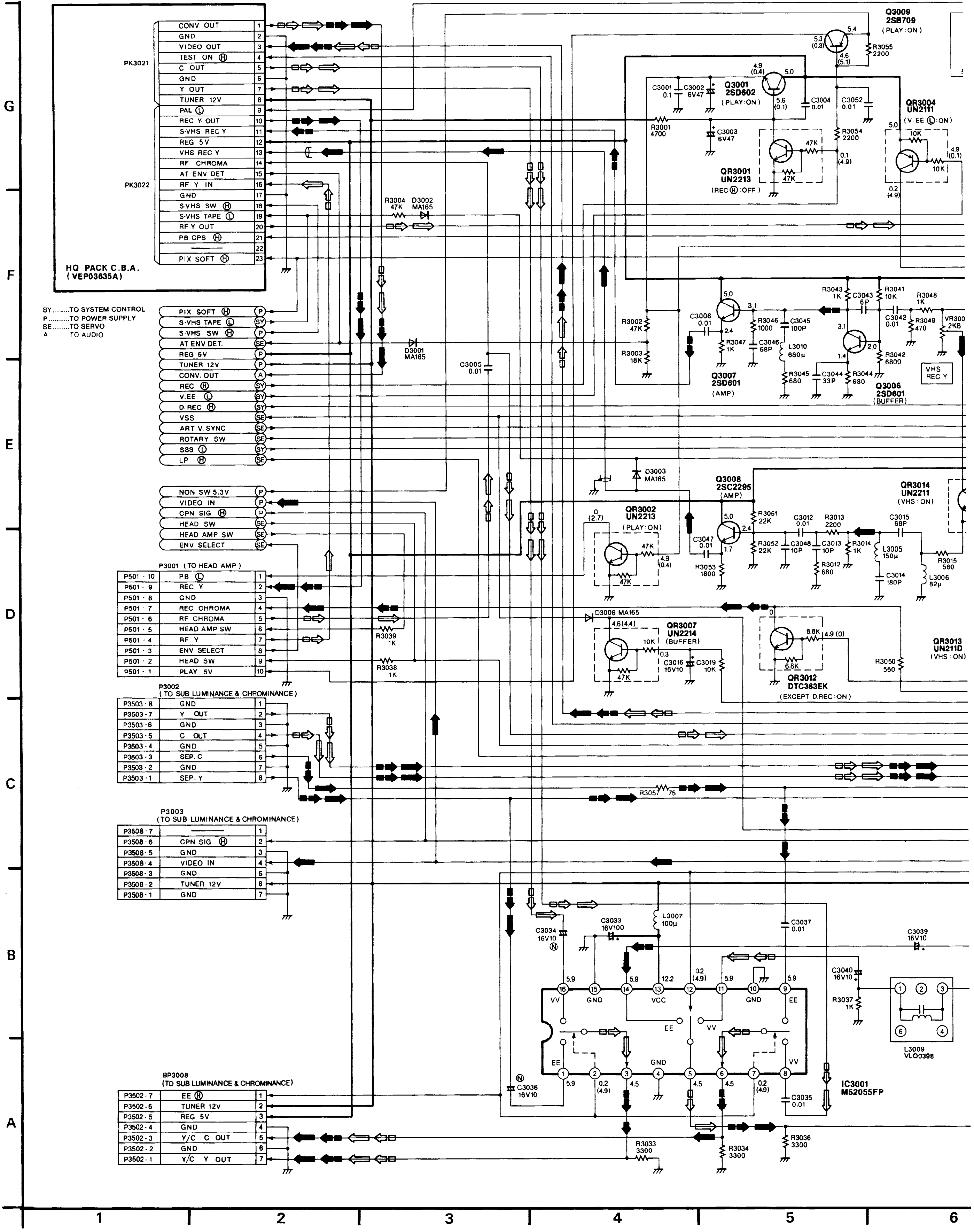
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

21 | 22 | 23 | 24 | 25 | 26

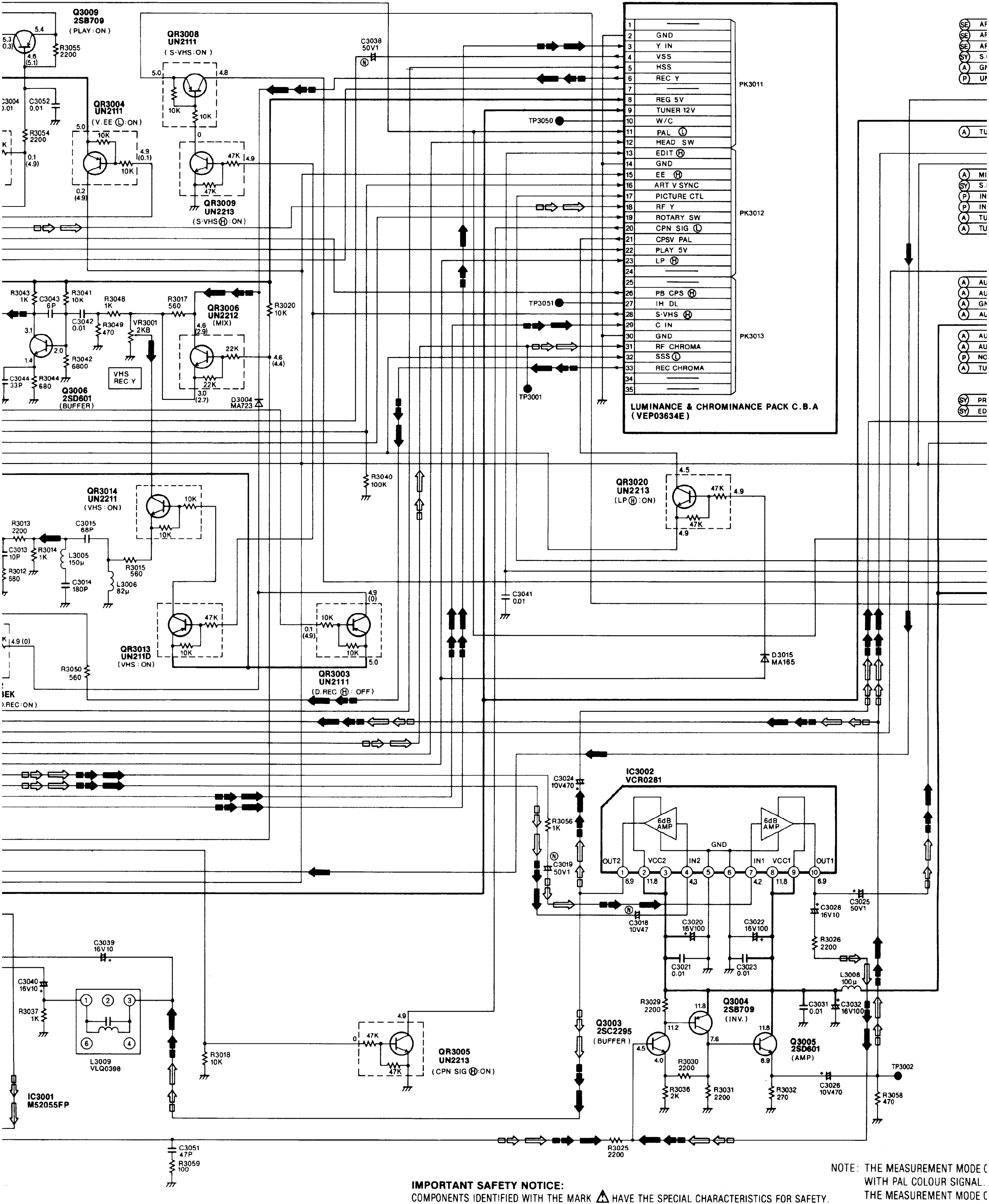
3-13. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

MAIN
MAIN


PK3021
PK3022
CONV. OUT
GND
VIDEO OUT
TEST ON Ⓗ
C OUT
GND
Y OUT
TUNER 12V
PAL Ⓛ
REC Y OUT
S-VHS REC Y
REG 5V
VHS REC Y
RF CHROMA
AT ENV DET
RF Y IN
GND
S-VHS SW Ⓗ
S-VHS TAPE Ⓛ
RF Y OUT
PB CPS Ⓗ
PIX SOFT Ⓗ
HQ PACK C.B.A. (VEP03635A)
SY.........TO SYSTEM CONTROL
P...........TO POWER SUPPLY
SE.........TO SERVO
A TO AUDIO
PIX SOFT Ⓗ
S-VHS TAPE Ⓛ
S-VHS SW Ⓗ
AT ENV DET.
REG 5V
TUNER 12V
CONV. OUT
REC Ⓗ
V.EE Ⓛ
D.REC Ⓗ
VSS
ART V. SYNC
ROTARY SW
SSS Ⓛ
LP Ⓗ
NON SW 5.3V
VIDEO IN
CPN SIG Ⓗ
HEAD SW
HEAD AMP SW
ENV SELECT
P3001 (TO HEAD AMP)
P501 · 10 PB Ⓛ
P501 · 9 REC Y
P501 · 8 GND
P501 · 7 REC CHROMA
P501 · 6 RF CHROMA
P501 · 5 HEAD AMP SW
P501 · 4 RF Y
P501 · 3 ENV SELECT
P501 · 2 HEAD SW
P501 · 1 PLAY 5V
P3002 (TO SUB LUMINANCE & CHROMINANCE)
P3503 · 8 GND
P3503 · 7 Y OUT
P3503 · 6 GND
P3503 · 5 C OUT
P3503 · 4 GND
P3503 · 3 SEP. C
P3503 · 2 GND
P3503 · 1 SEP. Y
P3003 (TO SUB LUMINANCE & CHROMINANCE)
P3508 · 7
P3508 · 6 CPN SIG Ⓗ
P3508 · 5 GND
P3508 · 4 VIDEO IN
P3508 · 3 GND
P3508 · 2 TUNER 12V
P3508 · 1 GND
BP3008 (TO SUB LUMINANCE & CHROMINANCE)
P3502 · 7 EE Ⓗ
P3502 · 6 TUNER 12V
P3502 · 5 REG 5V
P3502 · 4 GND
P3502 · 3 Y/C C OUT
P3502 · 2 GND
P3502 · 1 Y/C Y OUT
Q3009 2SB709 (PLAY:ON)
R3055 2200
Q3001 2SD602 (PLAY:ON)
C3001 0.1
C3002 6V47
C3003 6V47
R3001 4700
C3004 0.01
C3052 0.01
R3054 2200
QR3001 UN2213 (REC Ⓗ :OFF)
QR3004 UN2111 (V.EE Ⓛ :ON)
R3004 47K
D3002 MA165
D3001 MA165
C3005 0.01
R3002 47K
R3003 18K
C3006 0.01
Q3007 2SD601 (AMP)
R3047 1K
R3046 1000
C3045 100P
C3046 68P
L3010 680μ
R3045 680
C3044 33P
R3044 680
R3043 1K
C3043 6P
R3041 10K
C3042 0.01
R3048 1K
R3049 470
VR3001 2KB
R3042 6800
Q3006 2SD601 (BUFFER)
VHS REC Y
D3003 MA165
Q3008 2SC2295 (AMP)
QR3002 UN2213 (PLAY:ON)
C3047 0.01
R3053 1800
R3051 22K
R3052 22K
C3012 0.01
R3013 2200
C3048 10P
C3013 10P
R3012 680
R3014 1K
L3005 150μ
C3015 68P
C3014 180P
R3015 560
L3006 82μ
QR3014 UN2211 (VHS:ON)
D3006 MA165
QR3007 UN2214 (BUFFER)
C3016 16V10
C3019 10K
QR3012 DTC363EK (EXCEPT D.REC:ON)
R3050 560
QR3013 UN211D (VHS:ON)
R3039 1K
R3038 1K
R3057 75
C3034 16V10
C3033 16V100
L3007 100μ
C3037 0.01
C3039 16V10
C3040 16V10
R3037 1K
L3009 VLQ0398
C3036 16V10
C3035 0.01
IC3001 M52055FP
VV
GND
VCC
EE
R3033 3300
R3034 3300
R3036 3300
G
F
E
D
C
B
A
1
2
3
4
5
6

MAIN SIGNAL PATH IN REC MODE (VHS)
MAIN SIGNAL PATH IN PLAYBACK MODE (VHS)

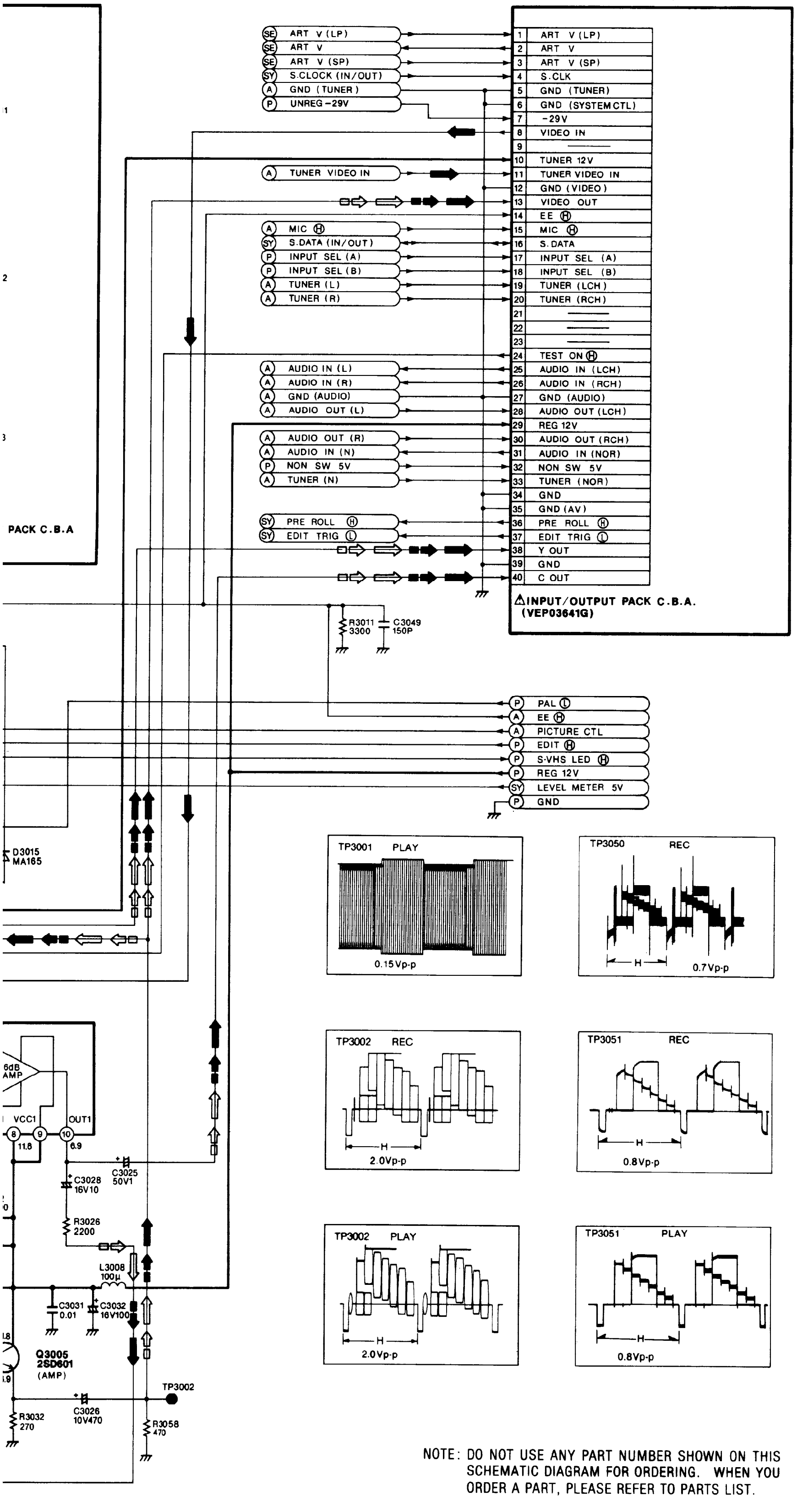
MAIN SIGNAL PATH IN
MAIN SIGNAL PATH IN


Q3009
2SB709
(PLAY:ON)
R3055
2200
QR3008
UN2111
(S-VHS:ON)
C3038
50V1
C3004
0.01
C3052
0.01
R3054
2200
QR3004
UN2111
(V.EE Ⓛ:ON)
QR3009
UN2213
(S-VHS Ⓗ:ON)
TP3050
1 ———
2 GND
3 Y IN
4 VSS
5 HSS
6 REC Y
7 ———
8 REG 5V
9 TUNER 12V
10 W/C
11 PAL Ⓛ
12 HEAD SW
13 EDIT Ⓗ
14 GND
15 EE Ⓗ
16 ART V SYNC
17 PICTURE CTL
18 RF Y
19 ROTARY SW
20 CPN SIG Ⓛ
21 CPSV PAL
22 PLAY 5V
23 LP Ⓗ
24 ———
25 ———
26 PB CPS Ⓗ
27 IH DL
28 S-VHS Ⓗ
29 C IN
30 GND
31 RF CHROMA
32 SSS Ⓛ
33 REC CHROMA
34 ———
35 ———
PK3011
PK3012
PK3013
LUMINANCE & CHROMINANCE PACK C.B.A
(VEP03634E)
TP3051
TP3001
R3043
1K
C3043
6P
R3041
10K
R3048
1K
C3042
0.01
R3049
470
VR3001
2KB
R3017
560
QR3006
UN2212
(MIX)
R3020
10K
R3042
6800
C3044
33P
R3044
680
Q3006
2SD601
(BUFFER)
VHS
REC Y
D3004
MA723
R3040
100K
QR3014
UN2211
(VHS:ON)
R3013
2200
C3015
68P
C3013
10P
R3014
1K
L3005
150μ
R3012
680
R3015
560
C3014
180P
L3006
82μ
QR3020
UN2213
(LP Ⓗ:ON)
C3041
0.01
QR3013
UN211D
(VHS:ON)
QR3003
UN2111
(D.REC Ⓗ:OFF)
R3050
560
D3015
MA165
IC3002
VCR0281
C3024
10V470
R3056
1K
C3019
50V1
6dB AMP
GND
OUT2
VCC2
IN2
IN1
VCC1
OUT1
C3018
10V47
C3020
16V100
C3022
16V100
C3021
0.01
C3023
0.01
C3028
16V10
C3025
50V1
R3026
2200
L3008
100μ
C3031
0.01
C3032
16V100
R3029
2200
Q3004
2SB709
(INV.)
Q3003
2SC2295
(BUFFER)
Q3005
2SD601
(AMP)
R3030
2200
R3036
2K
R3031
2200
R3032
270
C3026
10V470
TP3002
R3058
470
C3039
16V10
C3040
16V10
R3037
1K
L3009
VLQ0398
R3018
10K
QR3005
UN2213
(CPN SIG Ⓗ:ON)
IC3001
M52055FP
C3051
47P
R3059
100
R3025
2200
6
7
8
9
10

NOTE: THE MEASUREMENT MODE C
WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE C
WITH PAL COLOUR SIGNAL.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

MAIN SIGNAL PATH IN REC MODE (S-VHS)
MAIN SIGNAL PATH IN PLAYBACK MODE (S-VHS)


ART V (LP)
ART V
ART V (SP)
S.CLOCK (IN/OUT)
GND (TUNER)
UNREG -29V
TUNER VIDEO IN
MIC Ⓗ
S.DATA (IN/OUT)
INPUT SEL (A)
INPUT SEL (B)
TUNER (L)
TUNER (R)
AUDIO IN (L)
AUDIO IN (R)
GND (AUDIO)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (N)
NON SW 5V
TUNER (N)
PRE ROLL Ⓗ
EDIT TRIG Ⓛ
1 ART V (LP)
2 ART V
3 ART V (SP)
4 S.CLK
5 GND (TUNER)
6 GND (SYSTEM CTL)
7 -29V
8 VIDEO IN
9
10 TUNER 12V
11 TUNER VIDEO IN
12 GND (VIDEO)
13 VIDEO OUT
14 EE Ⓗ
15 MIC Ⓗ
16 S.DATA
17 INPUT SEL (A)
18 INPUT SEL (B)
19 TUNER (LCH)
20 TUNER (RCH)
21
22
23
24 TEST ON Ⓗ
25 AUDIO IN (LCH)
26 AUDIO IN (RCH)
27 GND (AUDIO)
28 AUDIO OUT (LCH)
29 REG 12V
30 AUDIO OUT (RCH)
31 AUDIO IN (NOR)
32 NON SW 5V
33 TUNER (NOR)
34 GND
35 GND (AV)
36 PRE ROLL Ⓗ
37 EDIT TRIG Ⓛ
38 Y OUT
39 GND
40 C OUT
⚠INPUT/OUTPUT PACK C.B.A. (VEP03641G)
PACK C.B.A
R3011 3300
C3049 150P
PAL Ⓛ
EE Ⓗ
PICTURE CTL
EDIT Ⓗ
S-VHS LED Ⓗ
REG 12V
LEVEL METER 5V
GND
D3015 MA165
6dB AMP
VCC1
OUT1
11.8
6.9
C3028 16V10
C3025 50V1
R3026 2200
L3008 100μ
C3031 0.01
C3032 16V100
Q3005 2SD601 (AMP)
C3026 10V470
R3032 270
R3058 470
TP3002
TP3001 PLAY
0.15Vp-p
TP3050 REC
H
0.7Vp-p
TP3002 REC
H
2.0Vp-p
TP3051 REC
H
0.8Vp-p
TP3002 PLAY
H
2.0Vp-p
TP3051 PLAY
H
0.8Vp-p

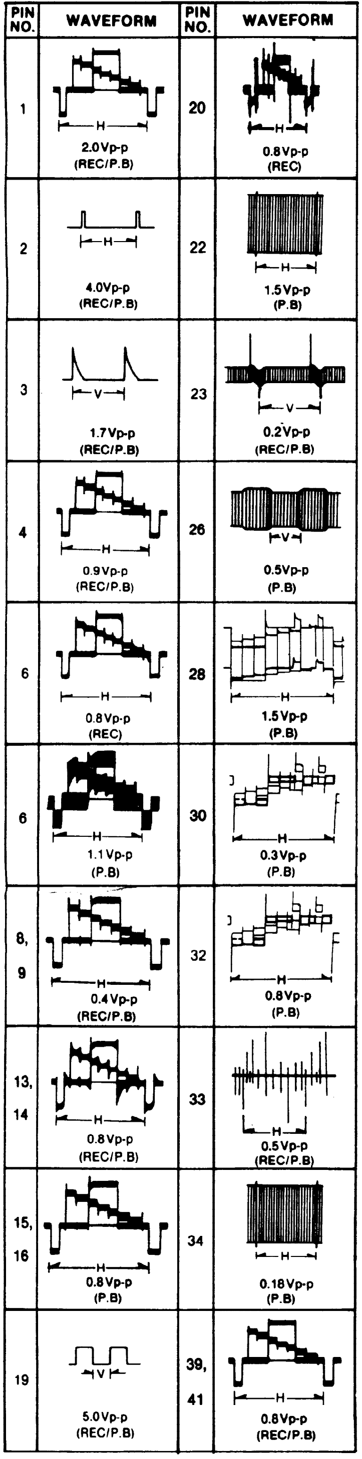
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

CS FOR SAFETY.

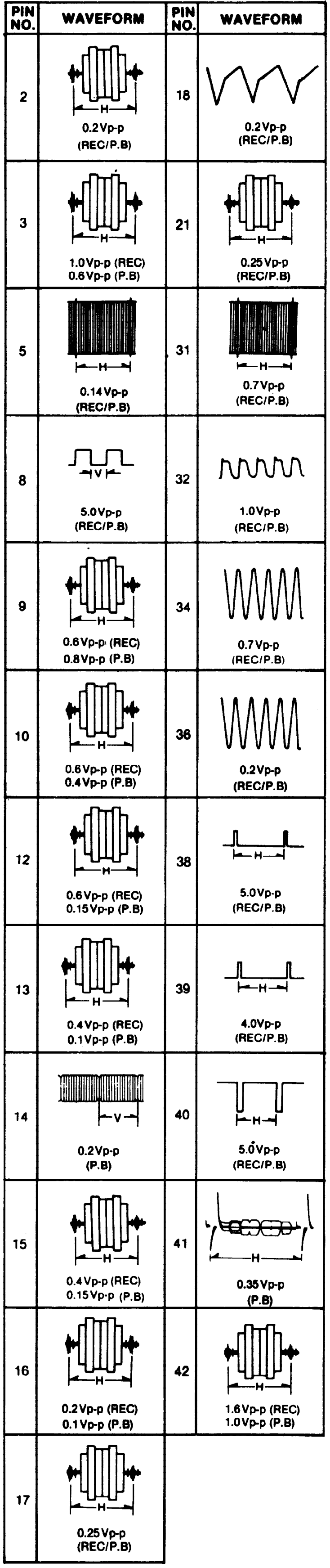
10 11 12 13

IC301 (VEFH07C)
(S-VHS: SP MODE)



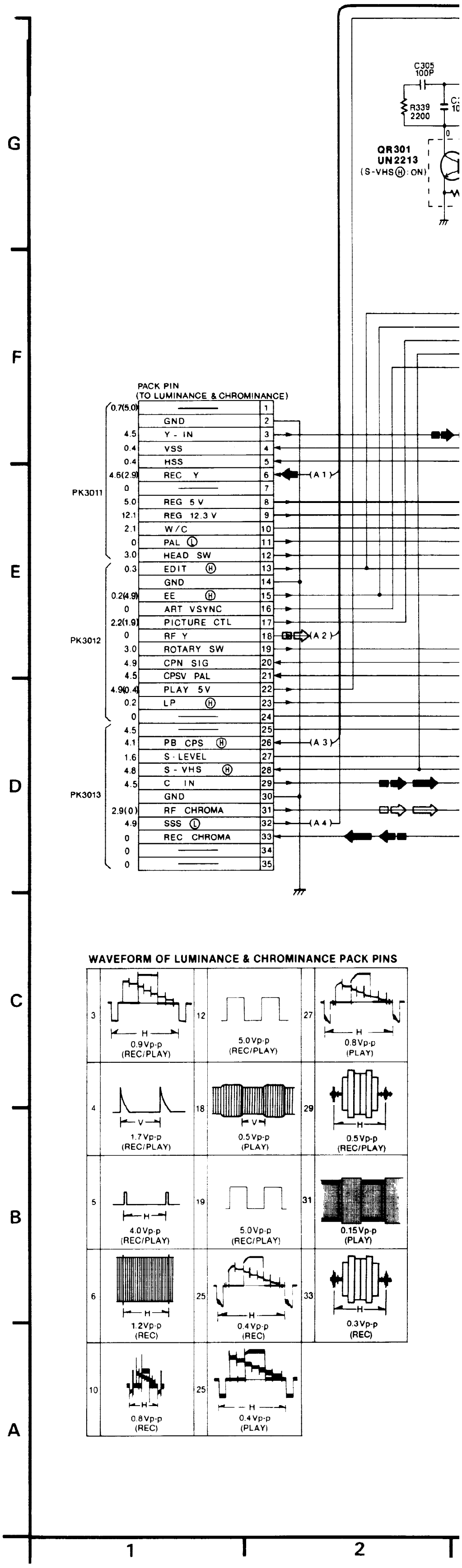
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	2.0Vp-p (REC/P.B)	20	0.8Vp-p (REC)
2	4.0Vp-p (REC/P.B)	22	1.5Vp-p (P.B)
3	1.7Vp-p (REC/P.B)	23	0.2Vp-p (REC/P.B)
4	0.9Vp-p (REC/P.B)	26	0.5Vp-p (P.B)
6	0.8Vp-p (REC)	28	1.5Vp-p (P.B)
6	1.1Vp-p (P.B)	30	0.3Vp-p (P.B)
8, 9	0.4Vp-p (REC/P.B)	32	0.8Vp-p (P.B)
13, 14	0.8Vp-p (REC/P.B)	33	0.5Vp-p (REC/P.B)
15, 16	0.8Vp-p (P.B)	34	0.18Vp-p (P.B)
19	5.0Vp-p (REC/P.B)	39, 41	0.8Vp-p (REC/P.B)

IC801 (VCR0284)
(S-VHS: SP MODE)



PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	0.2Vp-p (REC/P.B)	18	0.2Vp-p (REC/P.B)
3	1.0Vp-p (REC) 0.6Vp-p (P.B)	21	0.25Vp-p (REC/P.B)
5	0.14Vp-p (REC/P.B)	31	0.7Vp-p (REC/P.B)
8	5.0Vp-p (REC/P.B)	32	1.0Vp-p (REC/P.B)
9	0.6Vp-p (REC) 0.8Vp-p (P.B)	34	0.7Vp-p (REC/P.B)
10	0.6Vp-p (REC) 0.4Vp-p (P.B)	36	0.2Vp-p (REC/P.B)
12	0.6Vp-p (REC) 0.15Vp-p (P.B)	38	5.0Vp-p (REC/P.B)
13	0.4Vp-p (REC) 0.1Vp-p (P.B)	39	4.0Vp-p (REC/P.B)
14	0.2Vp-p (P.B)	40	5.0Vp-p (REC/P.B)
15	0.4Vp-p (REC) 0.15Vp-p (P.B)	41	0.35Vp-p (P.B)
16	0.2Vp-p (REC) 0.1Vp-p (P.B)	42	1.6Vp-p (REC) 1.0Vp-p (P.B)
17	0.25Vp-p (REC/P.B)		

3-15. LUMINANCE & CHRO



PACK PIN
(TO LUMINANCE & CHROMINANCE)

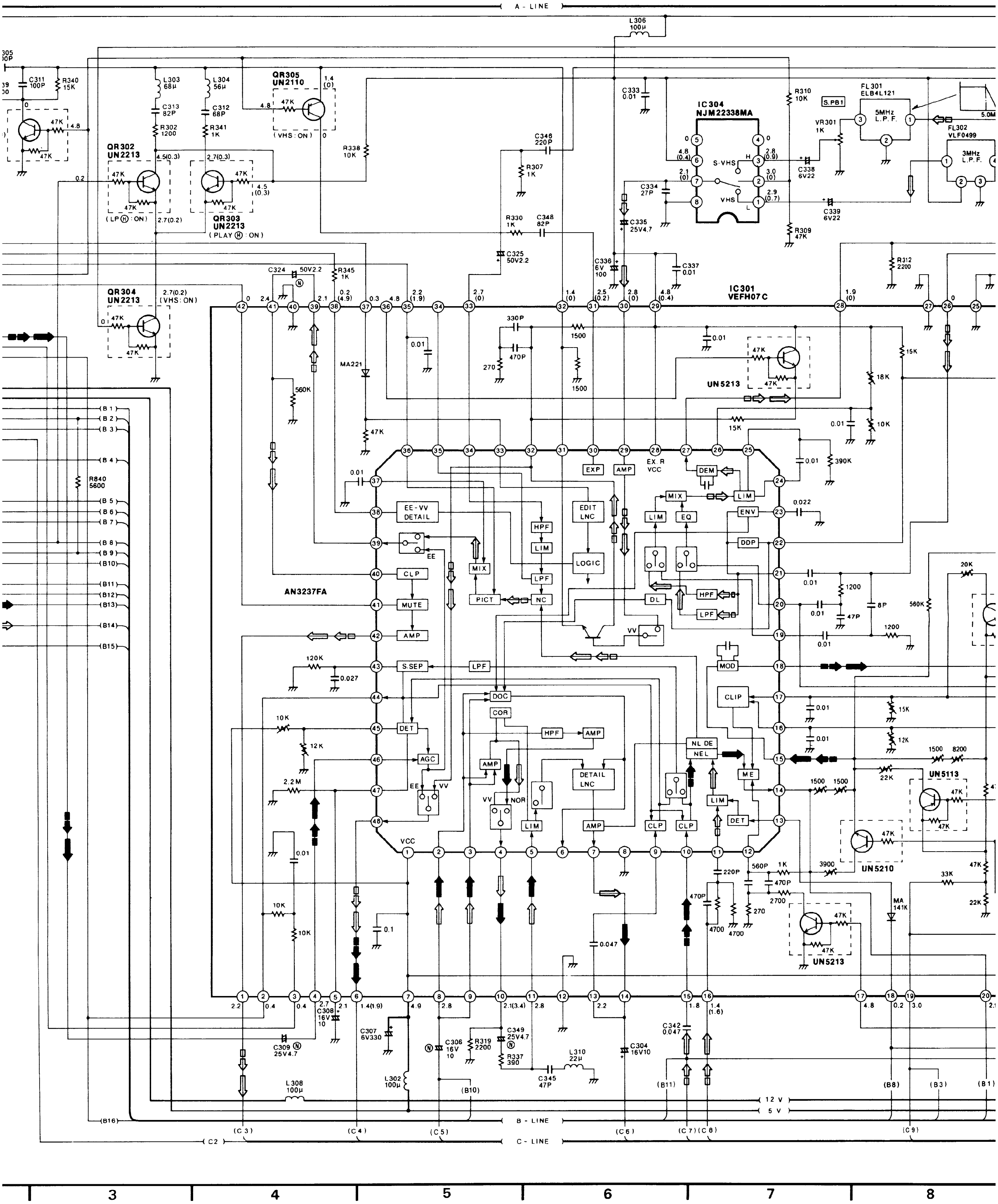
PK3011	0.7(5.0)	———	1
		GND	2
	4.5	Y - IN	3
	0.4	VSS	4
	0.4	HSS	5
	4.6(2.9)	REC Y	6
	0	———	7
	5.0	REG 5 V	8
	12.1	REG 12.3 V	9
	2.1	W/C	10
	0	PAL Ⓛ	11
	3.0	HEAD SW	12
PK3012	0.3	EDIT Ⓗ	13
		GND	14
	0.2(4.9)	EE Ⓗ	15
	0	ART VSYNC	16
	2.2(1.9)	PICTURE CTL	17
	0	RF Y	18
	3.0	ROTARY SW	19
	4.9	CPN SIG	20
	4.5	CPSV PAL	21
	4.9(0.4)	PLAY 5V	22
	0.2	LP Ⓗ	23
	0	———	24
PK3013	4.5	———	25
	4.1	PB CPS Ⓗ	26
	1.6	S - LEVEL	27
	4.8	S - VHS Ⓗ	28
	4.5	C IN	29
		GND	30
	2.9(0)	RF CHROMA	31
	4.9	SSS Ⓛ	32
	0	REC CHROMA	33
	0	———	34
	0	———	35

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS

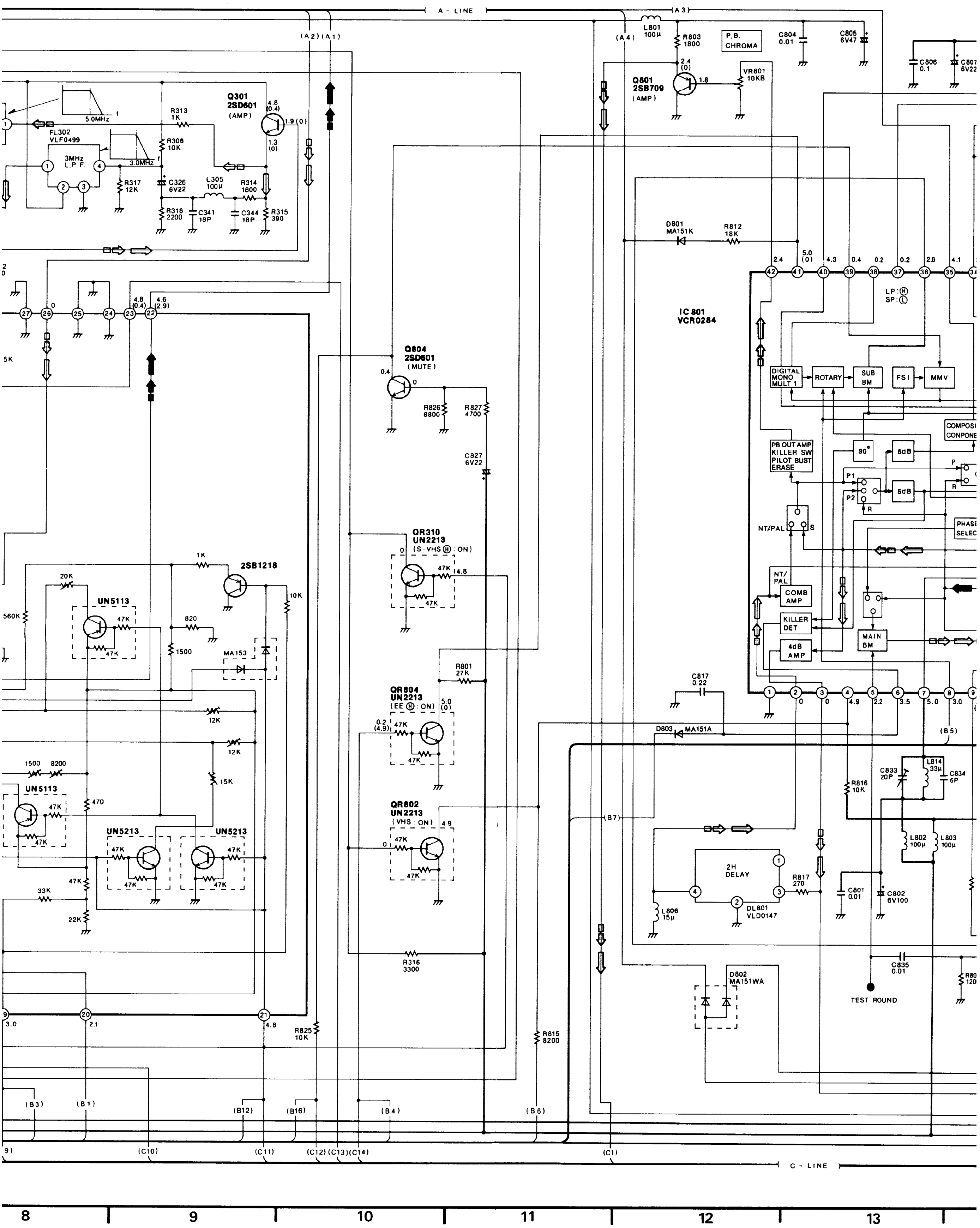
3	0.9Vp-p (REC/PLAY)	12	5.0Vp-p (REC/PLAY)	27	0.8Vp-p (PLAY)
4	1.7Vp-p (REC/PLAY)	18	0.5Vp-p (PLAY)	29	0.5Vp-p (REC/PLAY)
5	4.0Vp-p (REC/PLAY)	19	5.0Vp-p (REC/PLAY)	31	0.15Vp-p (PLAY)
6	1.2Vp-p (REC)	25	0.4Vp-p (REC)	33	0.3Vp-p (REC)
10	0.8Vp-p (REC)	25	0.4Vp-p (PLAY)		

ROMINANCE PACK SCHEMATIC DIAGRAM

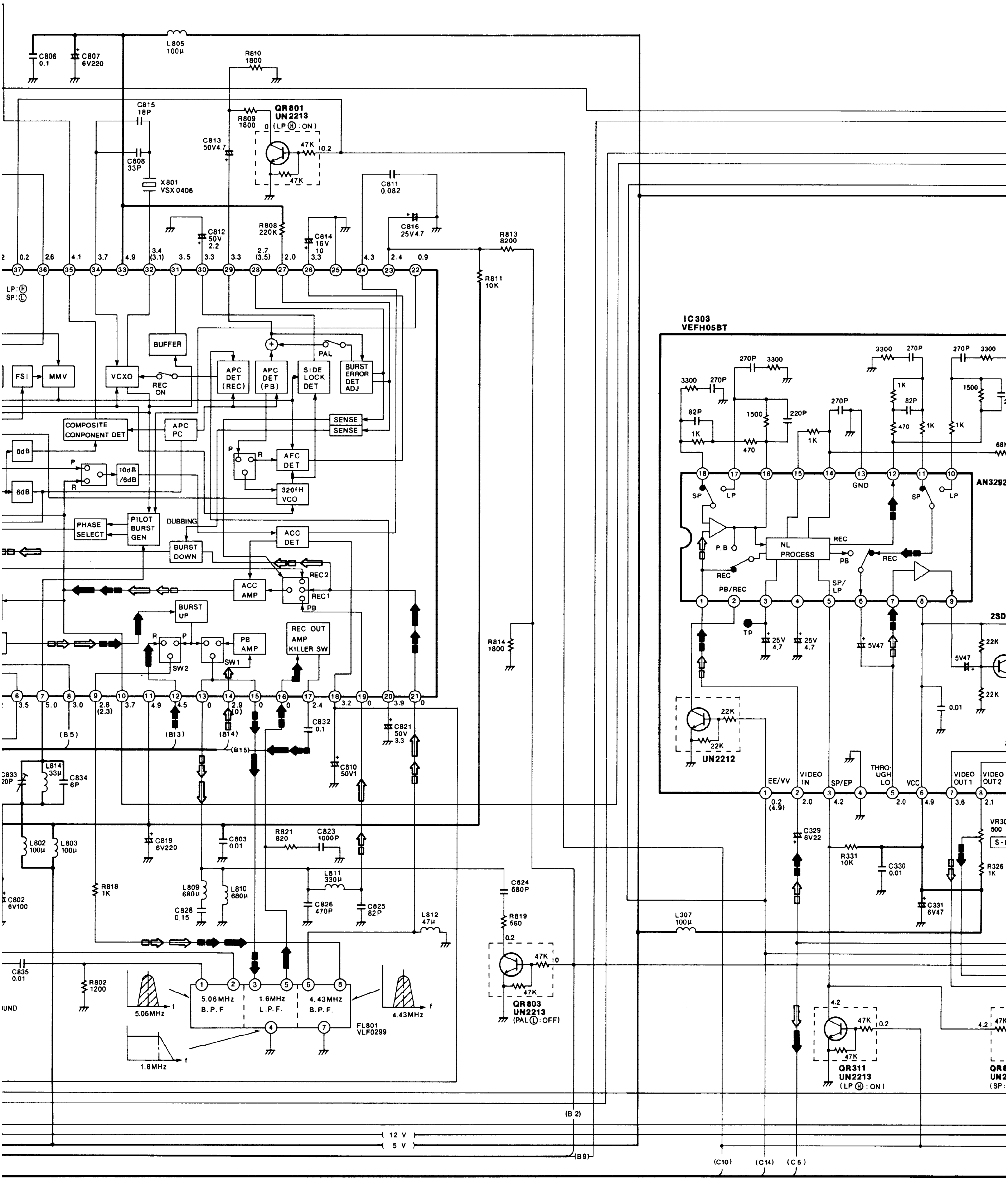
MAIN SIGNAL PATH IN REC MODE


A - LINE
L306 100μ
C333 0.01
IC304 NJM22338MA
S-VHS
VHS
R310 10K
S.PB1
VR301 1K
FL301 ELB4L121
5MHz L.P.F.
FL302 VLF0499
3MHz L.P.F.
C338 6V22
C339 6V22
R309 47K
C311 100P
R340 15K
L303 68μ
L304 56μ
C313 82P
C312 68P
R302 1200
R341 1K
QR305 UN2110
(VHS : ON)
QR302 UN2213
(LP Ⓗ : ON)
QR303 UN2213
(PLAY Ⓗ : ON)
R338 10K
C346 220P
R307 1K
C334 27P
C335 25V4.7
R330 1K
C348 82P
C325 50V2.2
C336 6V 100
C337 0.01
R312 2200
C324 50V2.2
R345 1K
QR304 UN2213
(VHS : ON)
IC301 VEFH07C
330P
1500
470P
270
MA221
560K
47K
UN5213
15K
18K
10K
390K
R840 5600
(B 1)
(B 2)
(B 3)
(B 4)
(B 5)
(B 6)
(B 7)
(B 8)
(B 9)
(B10)
(B11)
(B12)
(B13)
(B14)
(B15)
(B16)
AN3237FA
EE-VV DETAIL
EE
CLP
MUTE
AMP
S.SEP
LPF
DET
AGC
MIX
PICT
HPF
LIM
NC
EDIT LNC
LOGIC
EXP
EX R VCC
DEM
EQ
ENV
DDP
DL
VV
MOD
CLIP
NL DE
NEL
ME
DOC
COR
DETAIL LNC
NOR
VCC
120K
0.027
12K
2.2M
0.022
1200
47P
8P
20K
560K
UN5113
UN5210
1500
8200
22K
3900
33K
MA 141K
C342 0.047
C308 16V 10
C309 25V4.7
C307 6V330
C306 16V 10
R319 2200
C349 25V4.7
R337 390
L310 22μ
C345 47P
C304 16V10
L308 100μ
L302 100μ
(B10)
(B11)
(B8)
(B3)
(B1)
12 V
5 V
B - LINE
C - LINE
(C 2)
(C 3)
(C 4)
(C 5)
(C 6)
(C 7)
(C 8)
(C 9)
3
4
5
6
7
8

ℇEC MODE (VHS) ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE (VHS) ⬅■ MA

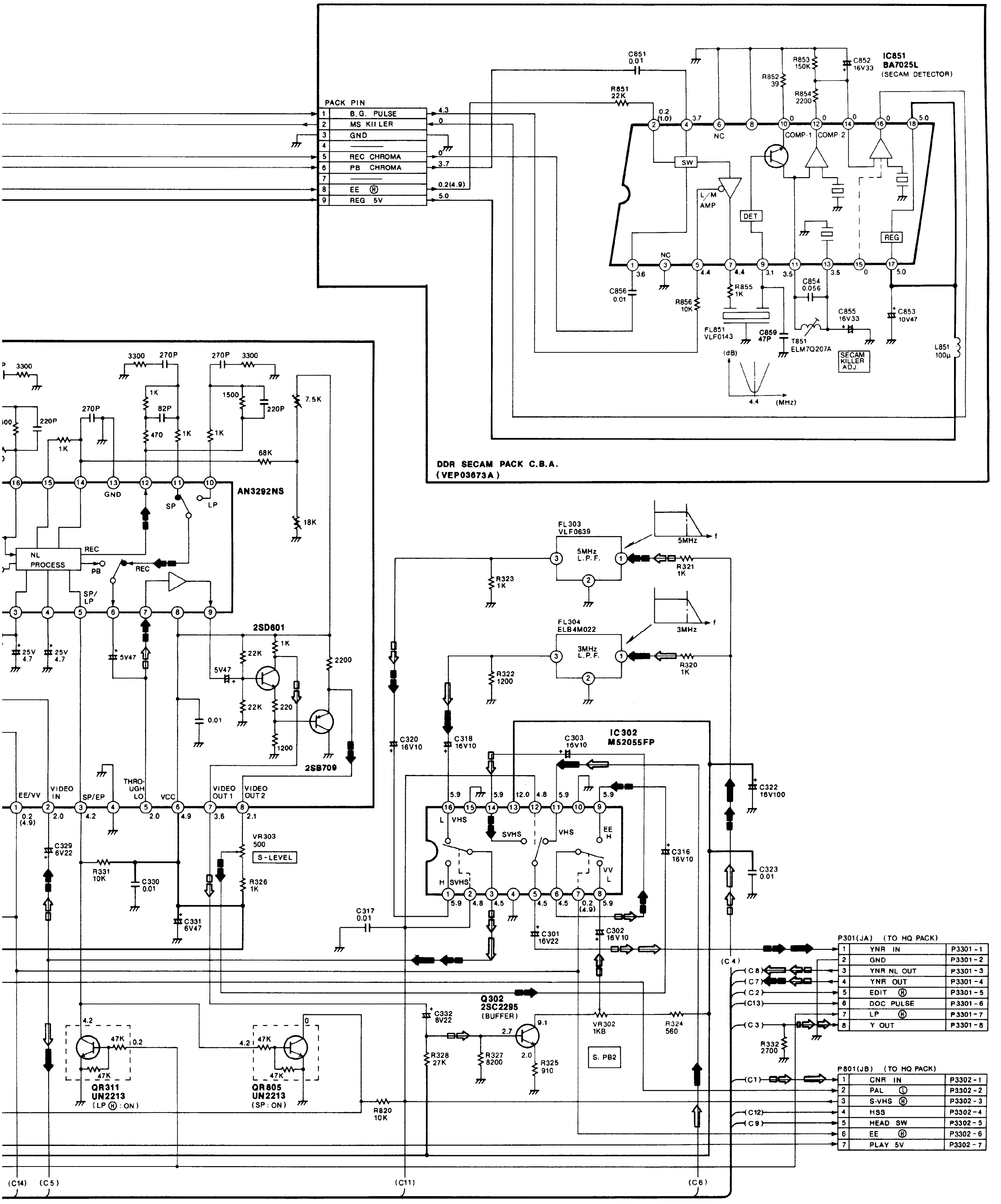

A - LINE
(A3)
(A2) (A1)
(A4)
L801 100μ
R803 1800
P.B. CHROMA
C804 0.01
C805 6V47
C806 0.1
C807 6V22
Q801 2SB709 (AMP)
VR801 10KB
2.4 (0)
1.8
FL302 VLF0499
5.0MHz
3.0MHz
3MHz L.P.F.
R313 1K
Q301 2SD601 (AMP)
4.8 (0.4)
1.9 (0)
1.3 (0)
R306 10K
R317 12K
C326 6V22
L305 100μ
R314 1800
R318 2200
C341 18P
C344 18P
R315 390
D801 MA151K
R812 18K
IC 801 VCR0284
LP: H
SP: L
DIGITAL MONO MULT 1
ROTARY
SUB BM
FSI
MMV
COMPOSI
CONPONE
PB OUT AMP KILLER SW PILOT BUST ERASE
90°
6dB
P1
P2
R
P
NT/PAL
S
PHASE SELEC
NT/PAL
COMB AMP
KILLER DET
4dB AMP
MAIN BM
Q804 2SD601 (MUTE)
0.4
R826 6800
R827 4700
C827 6V22
QR310 UN2213 (S-VHS H: ON)
47K
4.8
2SB1218
1K
UN5113
20K
560K
820
1500
MA153
10K
12K
15K
470
UN5213
33K
22K
8200
R801 27K
QR804 UN2213 (EE H: ON)
0.2 (4.9)
5.0 (0)
QR802 UN2213 (VHS: ON)
4.9
R316 3300
R825 10K
R815 8200
C817 0.22
D803 MA151A
(B5)
C833 20P
L814 33μ
C834 6P
R816 10K
L802 100μ
L803 100μ
(B7)
2H DELAY
DL801 VLD0147
L806 15μ
R817 270
C801 0.01
C802 6V100
D802 MA151WA
C835 0.01
TEST ROUND
(B3)
(B1)
(B12)
(B16)
(B4)
(B6)
(C10)
(C11)
(C12) (C13) (C14)
(C1)
C - LINE
8
9
10
11
12
13

MAIN SIGNAL PATH IN REC MODE (S-VHS)   MAIN SIGNAL PATH IN PLAYB


L805
100µ
C806
0.1
C807
6V220
R810
1800
C815
18P
QR801
UN2213
R809
1800
(LP Ⓗ : ON)
C813
50V4.7
47K
0.2
C808
33P
X801
VSX0406
C811
0.082
R808
220K
C812
50V
2.2
C814
16V
10
C816
25V4.7
R813
8200
R811
10K
LP:Ⓗ
SP:Ⓛ
BUFFER
PAL
FSI
MMV
VCXO
REC
ON
APC
DET
(REC)
APC
DET
(PB)
SIDE
LOCK
DET
BURST
ERROR
DET
ADJ
COMPOSITE
COMPONENT DET
APC
PC
SENSE
SENSE
6dB
6dB
10dB
/6dB
AFC
DET
320fH
VCO
PHASE
SELECT
PILOT
BURST
GEN
DUBBING
BURST
DOWN
ACC
DET
ACC
AMP
REC2
REC1
PB
BURST
UP
SW2
PB
AMP
SW1
REC OUT
AMP
KILLER SW
R814
1800
(B5)
(B13)
(B14)
(B15)
C832
0.1
C821
50V
3.3
C810
50V1
L814
33µ
C834
6P
L802
100µ
L803
100µ
C819
6V220
C803
0.01
R821
820
C823
1000P
L811
330µ
C826
470P
C825
82P
L812
47µ
C824
680P
R819
560
R818
1K
L809
680µ
L810
680µ
C828
0.15
C802
6V100
C835
0.01
R802
1200
5.06MHz
B.P.F
1.6MHz
L.P.F.
4.43MHz
B.P.F.
FL801
VLF0299
1.6MHz
QR803
UN2213
(PAL Ⓛ : OFF)
IC303
VEFH05BT
AN3292
NL
PROCESS
REC
PB
P.B
PB/REC
SP/
LP
GND
TP
25V
4.7
5V47
UN2212
22K
EE/VV
VIDEO
IN
SP/EP
THRO-
UGH
LO
VCC
VIDEO
OUT1
VIDEO
OUT2
C329
6V22
R331
10K
C330
0.01
C331
6V47
R326
1K
VR3
500
L307
100µ
2SD
QR311
UN2213
(LP Ⓗ : ON)
(B2)
(B9)
12 V
5 V
(C10)
(C14)
(C5)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE B
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)


IC851
BA7025L
(SECAM DETECTOR)
PACK PIN
B.G. PULSE
MS KILLER
GND
REC CHROMA
PB CHROMA
EE Ⓗ
REG 5V
C851 0.01
R851 22K
R852 39
R853 150K
R854 2200
C852 16V33
SW
L/M AMP
DET
COMP-1
COMP-2
REG
NC
C856 0.01
R856 10K
R855 1K
FL851 VLF0143
C859 47P
C854 0.056
T851 ELM7Q207A
C855 16V33
C853 10V47
SECAM KILLER ADJ.
L851 100μ
(dB)
4.4 (MHz)
DDR SECAM PACK C.B.A. (VEP03673A)
AN3292NS
GND
SP
LP
NL PROCESS
REC
PB
SP/LP
2SD601
2SB709
FL303 VLF0639
5MHz L.P.F.
R321 1K
R323 1K
FL304 ELB4M022
3MHz L.P.F.
R320 1K
R322 1200
IC302
M52055FP
C303 16V10
C320 16V10
C318 16V10
C322 16V100
C323 0.01
C316 16V10
C317 0.01
C301 16V22
C302 16V10
SVHS
VHS
EE
VV
EE/VV
VIDEO IN
SP/EP
THROUGH LO
VCC
VIDEO OUT 1
VIDEO OUT 2
VR303 500
S-LEVEL
R326 1K
R331 10K
C330 0.01
C329 6V22
C331 6V47
Q302
2SC2295
(BUFFER)
C332 6V22
R328 27K
R327 8200
R325 910
VR302 1KB
R324 560
S. PB2
R332 2700
QR311
UN2213
(LP Ⓗ : ON)
QR805
UN2213
(SP : ON)
R820 10K
P301(JA) (TO HQ PACK)
1 YNR IN P3301-1
2 GND P3301-2
3 YNR NL OUT P3301-3
4 YNR OUT P3301-4
5 EDIT Ⓗ P3301-5
6 DOC PULSE P3301-6
7 LP Ⓗ P3301-7
8 Y OUT P3301-8
P801(JB) (TO HQ PACK)
1 CNR IN P3302-1
2 PAL Ⓛ P3302-2
3 S-VHS Ⓗ P3302-3
4 HSS P3302-4
5 HEAD SW P3302-5
6 EE Ⓗ P3302-6
7 PLAY 5V P3302-7
(C14)
(C5)
(C11)
(C6)
(C4)
(C8)
(C7)
(C2)
(C13)
(C3)
(C1)
(C12)
(C9)

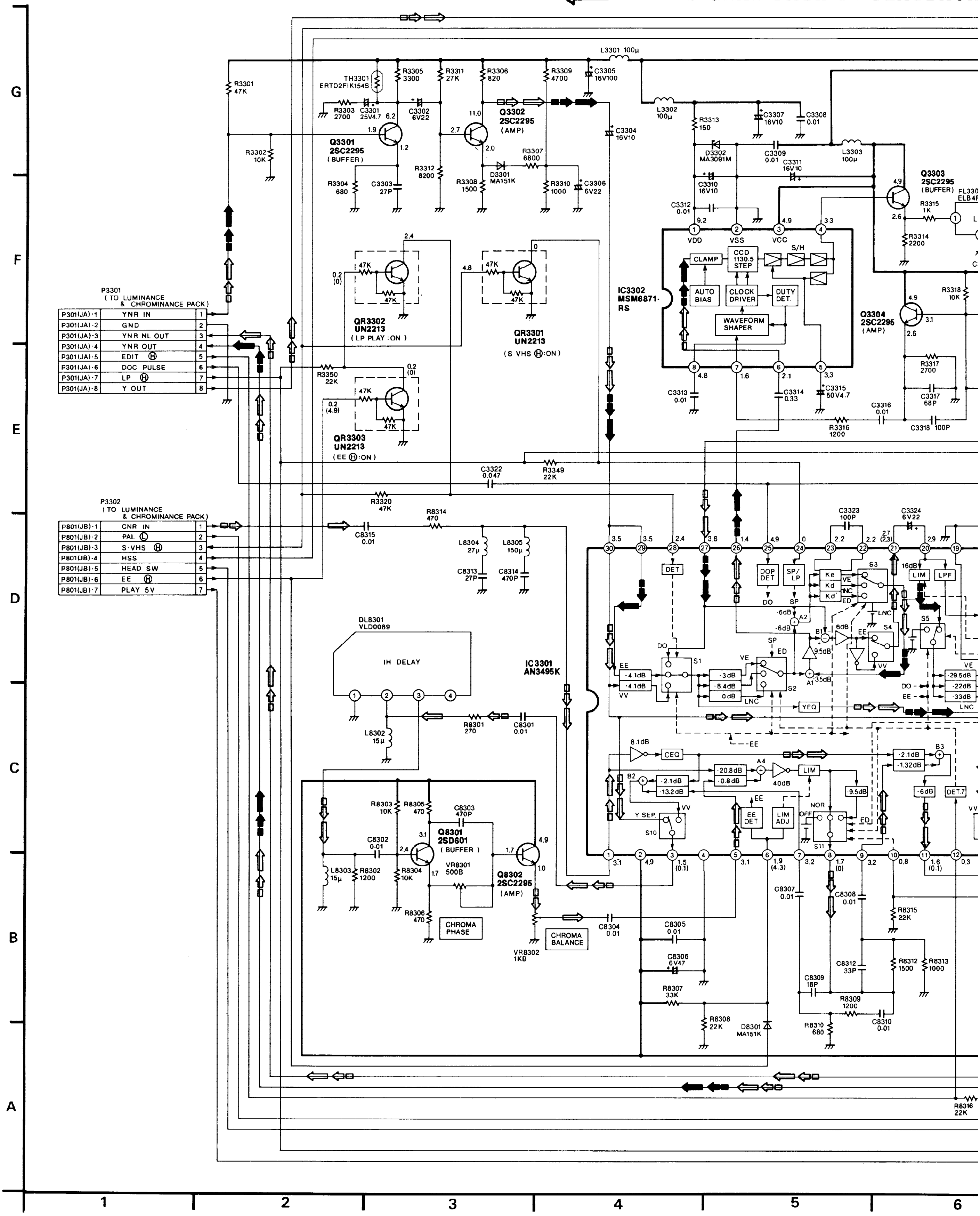
MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
-I PAL COLOUR SIGNAL. (S-VHS: SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

18 | 19 | 20 | 21 | 22 | 23

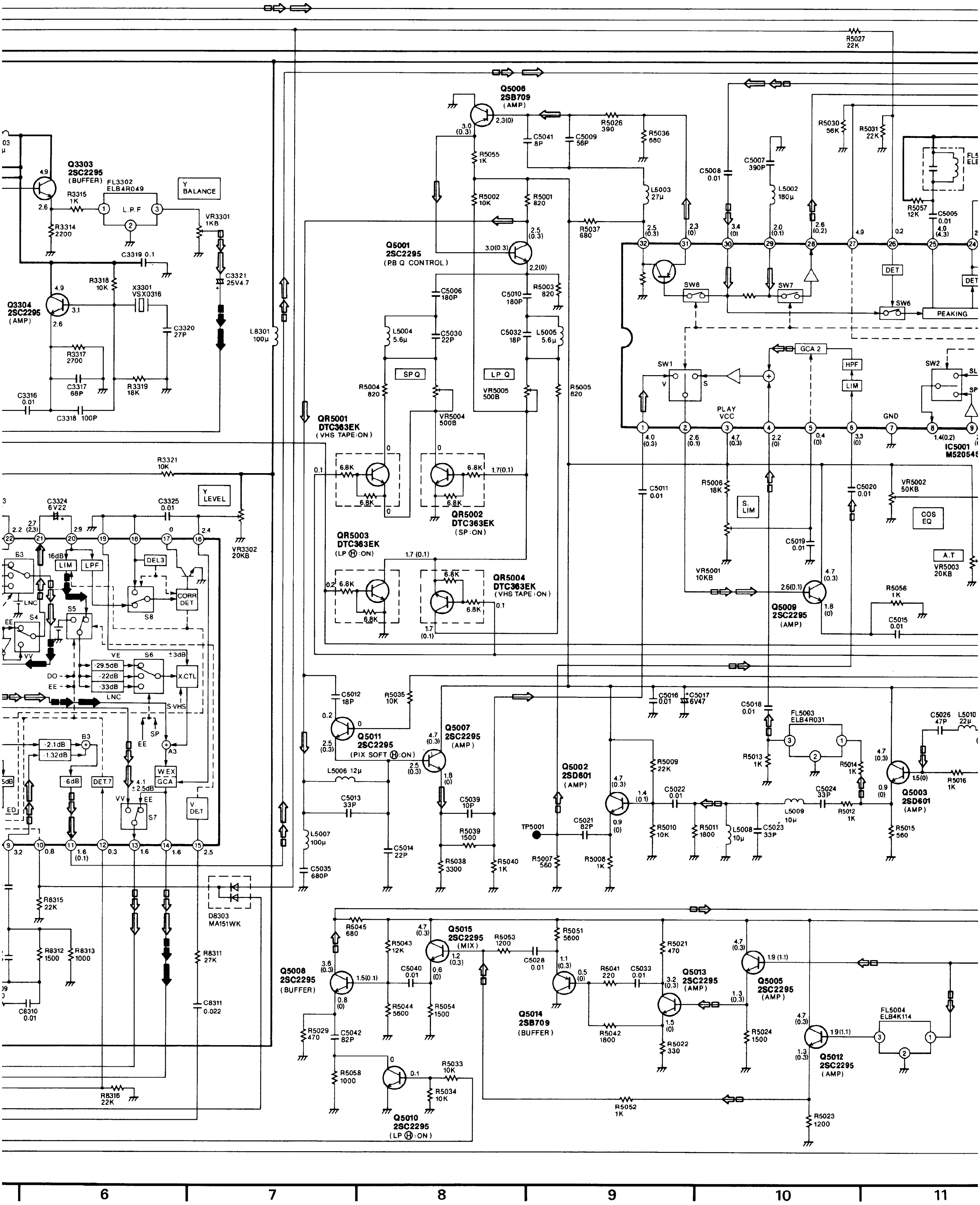
3-16. HQ PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK

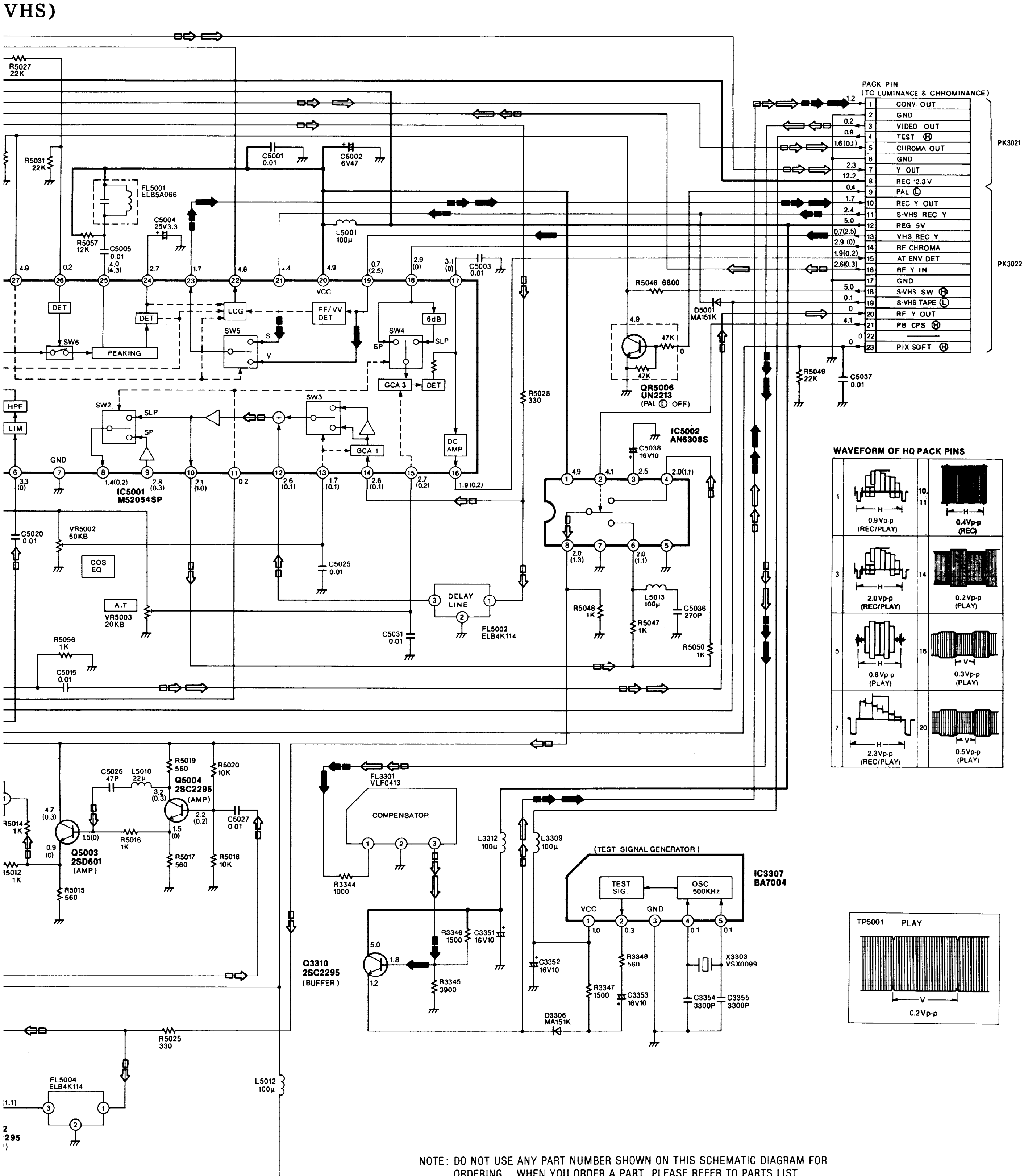

G
F
E
D
C
B
A
1
2
3
4
5
6
P3301 (TO LUMINANCE & CHROMINANCE PACK)
P301(JA)-1 YNR IN 1
P301(JA)-2 GND 2
P301(JA)-3 YNR NL OUT 3
P301(JA)-4 YNR OUT 4
P301(JA)-5 EDIT Ⓗ 5
P301(JA)-6 DOC PULSE 6
P301(JA)-7 LP Ⓗ 7
P301(JA)-8 Y OUT 8
P3302 (TO LUMINANCE & CHROMINANCE PACK)
P801(JB)-1 CNR IN 1
P801(JB)-2 PAL Ⓛ 2
P801(JB)-3 S-VHS Ⓗ 3
P801(JB)-4 HSS 4
P801(JB)-5 HEAD SW 5
P801(JB)-6 EE Ⓗ 6
P801(JB)-7 PLAY 5V 7
R3301 47K
R3302 10K
TH3301 ERTD2FIK154S
R3303 2700
C3301 25V4.7
C3302 6V22
R3304 680
C3303 27P
R3305 3300
R3311 27K
R3312 8200
Q3301 2SC2295 (BUFFER)
R3306 820
Q3302 2SC2295 (AMP)
R3307 6800
D3301 MA151K
R3308 1500
R3309 4700
R3310 1000
C3305 16V100
C3304 16V10
C3306 6V22
L3301 100μ
L3302 100μ
R3313 150
C3307 16V10
C3308 0.01
D3302 MA3091M
C3309 0.01
C3311 16V10
L3303 100μ
C3310 16V10
C3312 0.01
Q3303 2SC2295 (BUFFER)
FL330 ELB4F
R3315 1K
R3314 2200
IC3302 MSM6871-RS
VDD
VSS
VCC
CLAMP
CCD 1130.5 STEP
S/H
AUTO BIAS
CLOCK DRIVER
DUTY DET.
WAVEFORM SHAPER
C3313 0.01
C3314 0.33
C3315 50V4.7
Q3304 2SC2295 (AMP)
R3318 10K
R3317 2700
C3317 68P
C3316 0.01
R3316 1200
C3318 100P
QR3302 UN2213 (LP PLAY :ON)
QR3301 UN2213 (S-VHS Ⓗ:ON)
QR3303 UN2213 (EE Ⓗ:ON)
47K
R3350 22K
C3322 0.047
R3349 22K
R3320 47K
R8314 470
C8315 0.01
L8304 27μ
L8305 150μ
C8313 27P
C8314 470P
C3323 100P
C3324 6V22
IC3301 AN3495K
DET
DOP DET
SP/ LP
DO
SP
Ke
Kd
VE
INC
ED
LNC
LIM
LPF
S1
S2
S4
S5
S10
S11
A1
A2
A4
B1
B2
B3
EE
VV
-4.1dB
-3dB
-8.4dB
0dB
YEQ
-29.5dB
-22dB
-33dB
8.1dB
CEQ
-20.8dB
-0.8dB
40dB
-2.1dB
-13.2dB
Y SEP.
EE DET
LIM ADJ
NOR
OFF
-9.5dB
-1.32dB
-6dB
DET.7
DL8301 VLD0089
IH DELAY
L8302 15μ
R8301 270
C8301 0.01
R8303 10K
R8305 470
C8303 470P
C8302 0.01
Q8301 2SD601 (BUFFER)
VR8301 500B
Q8302 2SC2295 (AMP)
L8303 15μ
R8302 1200
R8304 10K
R8306 470
CHROMA PHASE
VR8302 1KB
CHROMA BALANCE
C8304 0.01
C8305 0.01
C8306 6V47
R8307 33K
R8308 22K
D8301 MA151K
C8307 0.01
C8308 0.01
R8315 22K
C8309 18P
C8312 33P
R8312 1500
R8313 1000
R8309 1200
R8310 680
C8310 0.01
R8316 22K

REC MODE (VHS) ◀■ MAIN SIGNAL PATH IN REC MODE (S-VHS)

PLAYBACK MODE (VHS) ◁□ MAIN SIGNAL PATH IN PLAYBACK MODE (S-VHS)


Q3303
2SC2295
(BUFFER)
FL3302
ELB4R049
L.P.F
Y BALANCE
VR3301
1KB
R3315
1K
R3314
2200
C3319 0.1
C3321
25V4.7
R3318
10K
X3301
VSX0316
Q3304
2SC2295
(AMP)
C3320
27P
R3317
2700
C3317
68P
R3319
18K
C3316
0.01
C3318 100P
L8301
100μ
R3321
10K
Y LEVEL
C3324
6V22
C3325
0.01
VR3302
20KB
LIM
LPF
DEL3
CORR DET
LNC
S3
S4
S5
S6
S7
S8
VE
DO
EE
-29.5dB
-22dB
-33dB
±3dB
X.CTL
S-VHS
-2.1dB
-1.32dB
B3
A3
6dB
DET.7
W.EX GCA
V DET
VV
SP
±2.5dB
R8315
22K
R8312
1500
R8313
1000
C8310
0.01
R8311
27K
C8311
0.022
R8316
22K
D8303
MA151WK
Q5006
2SB709
(AMP)
C5041
8P
C5009
56P
R5026
390
R5036
680
R5055
1K
R5002
10K
R5001
820
L5003
27μ
R5037
680
Q5001
2SC2295
(P.B Q CONTROL)
C5006
180P
C5010
180P
R5003
820
L5004
5.6μ
C5030
22P
C5032
18P
L5005
5.6μ
SP Q
LP Q
R5004
820
VR5005
500B
R5005
820
VR5004
500B
QR5001
DTC363EK
(VHS TAPE:ON)
QR5002
DTC363EK
(SP:ON)
QR5003
DTC363EK
(LP Ⓗ:ON)
QR5004
DTC363EK
(VHS TAPE:ON)
6.8K
R5027
22K
R5030
56K
R5031
22K
C5007
390P
C5008
0.01
L5002
180μ
R5057
12K
C5005
0.01
FL5
SW1
SW2
SW6
SW7
SW8
GCA 2
HPF
LIM
DET
PEAKING
PLAY VCC
GND
IC5001
M52054
C5011
0.01
R5006
18K
S. LIM
VR5001
10KB
C5019
0.01
C5020
0.01
VR5002
50KB
COS EQ
A.T
VR5003
20KB
R5056
1K
C5015
0.01
Q5009
2SC2295
(AMP)
C5012
18P
R5035
10K
Q5011
2SC2295
(PIX SOFT Ⓗ:ON)
Q5007
2SC2295
(AMP)
L5006 12μ
C5013
33P
L5007
100μ
C5014
22P
C5035
680P
C5039
10P
R5039
1500
R5038
3300
R5040
1K
Q5002
2SD601
(AMP)
C5016
0.01
C5017
6V47
C5018
0.01
FL5003
ELB4R031
R5009
22K
TP5001
C5021
82P
R5007
560
R5008
1K
C5022
0.01
R5010
10K
R5011
1800
L5008
10μ
C5023
33P
L5009
10μ
C5024
33P
R5012
1K
R5013
1K
R5014
1K
C5026
47P
L5010
22μ
Q5003
2SD601
(AMP)
R5016
1K
R5015
560
R5045
680
Q5008
2SC2295
(BUFFER)
R5043
12K
Q5015
2SC2295
(MIX)
R5053
1200
C5028
0.01
R5051
5600
C5040
0.01
R5044
5600
R5054
1500
R5029
470
C5042
82P
R5058
1000
Q5010
2SC2295
(LP Ⓗ:ON)
R5033
10K
R5034
10K
Q5014
2SB709
(BUFFER)
R5041
220
C5033
0.01
R5042
1800
Q5013
2SC2295
(AMP)
R5022
330
R5021
470
Q5005
2SC2295
(AMP)
R5024
1500
Q5012
2SC2295
(AMP)
FL5004
ELB4K114
R5052
1K
R5023
1200
6
7
8
9
10
11

VHS)


PACK PIN
(TO LUMINANCE & CHROMINANCE)
1 CONV. OUT
2 GND
3 VIDEO OUT
4 TEST Ⓗ
5 CHROMA OUT
6 GND
7 Y OUT
8 REG 12.3 V
9 PAL Ⓛ
10 REC Y OUT
11 S-VHS REC Y
12 REG 5V
13 VHS REC Y
14 RF CHROMA
15 AT ENV DET
16 RF Y IN
17 GND
18 S-VHS SW Ⓗ
19 S-VHS TAPE Ⓛ
20 RF Y OUT
21 PB CPS Ⓗ
22
23 PIX SOFT Ⓗ
PK3021
PK3022
IC5001
M52054SP
IC5002
AN6308S
IC3307
BA7004
(TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
COMPENSATOR
FL3301
VLF0413
FL5001
ELB5A066
FL5002
ELB4K114
FL5004
ELB4K114
DELAY LINE
QR5006
UN2213
(PAL Ⓛ: OFF)
Q5003
2SD601
(AMP)
Q5004
2SC2295
(AMP)
Q3310
2SC2295
(BUFFER)
D5001
MA151K
D3306
MA151K
X3303
VSX0099
DET
LCG
FF/VV DET
6dB
SW4
SW5
SW6
PEAKING
GCA 3
GCA 1
DC AMP
SW2
SW3
HPF
LIM
COS EQ
A.T
VR5002
50KB
VR5003
20KB
WAVEFORM OF HQ PACK PINS
0.9Vp-p
(REC/PLAY)
0.4Vp-p
(REC)
2.0Vp-p
(REC/PLAY)
0.2Vp-p
(PLAY)
0.6Vp-p
(PLAY)
0.3Vp-p
(PLAY)
2.3Vp-p
(REC/PLAY)
0.5Vp-p
(PLAY)
TP5001 PLAY
0.2Vp-p

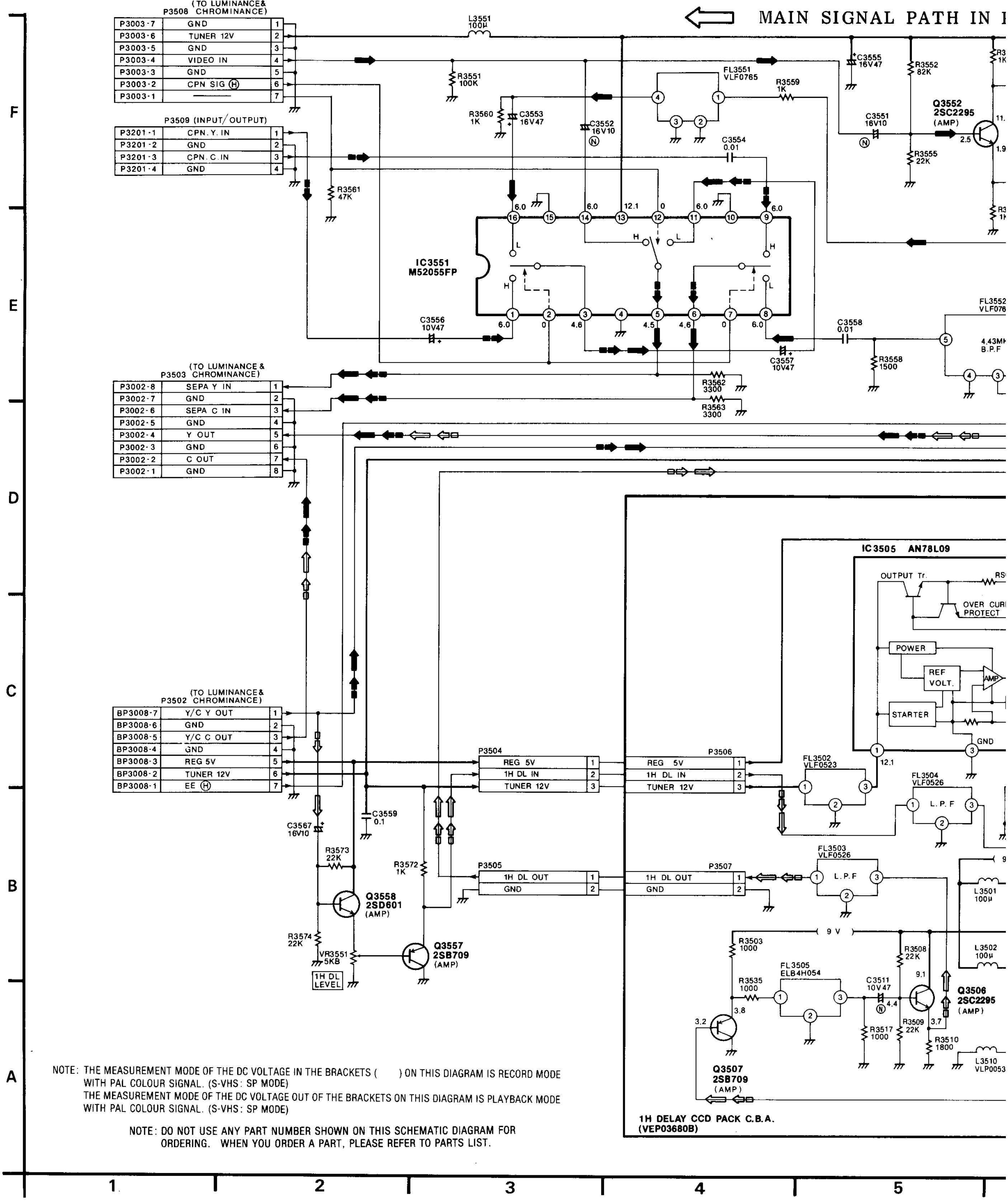
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

3-18. SUB LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

⬅ MAIN SIGNAL PATH IN

⇦ MAIN SIGNAL PATH IN


(TO LUMINANCE& CHROMINANCE) P3508
P3003-7 GND 1
P3003-6 TUNER 12V 2
P3003-5 GND 3
P3003-4 VIDEO IN 4
P3003-3 GND 5
P3003-2 CPN SIG Ⓗ 6
P3003-1 7
P3509 (INPUT/OUTPUT)
P3201-1 CPN. Y. IN 1
P3201-2 GND 2
P3201-3 CPN. C IN 3
P3201-4 GND 4
(TO LUMINANCE & CHROMINANCE) P3503
P3002-8 SEPA Y IN 1
P3002-7 GND 2
P3002-6 SEPA C IN 3
P3002-5 GND 4
P3002-4 Y OUT 5
P3002-3 GND 6
P3002-2 C OUT 7
P3002-1 GND 8
(TO LUMINANCE& CHROMINANCE) P3502
BP3008-7 Y/C Y OUT 1
BP3008-6 GND 2
BP3008-5 Y/C C OUT 3
BP3008-4 GND 4
BP3008-3 REG 5V 5
BP3008-2 TUNER 12V 6
BP3008-1 EE Ⓗ 7
L3551 100μ
R3551 100K
R3560 1K
C3553 16V47
C3552 16V10
FL3551 VLF0765
R3559 1K
C3554 0.01
C3555 16V47
R3552 82K
C3551 16V10
R3555 22K
Q3552 2SC2295 (AMP)
R3561 47K
IC3551 M52055FP
C3556 10V47
C3557 10V47
C3558 0.01
R3558 1500
R3562 3300
R3563 3300
FL3552 VLF076
4.43MH B.P.F
P3504
REG 5V 1
1H DL IN 2
TUNER 12V 3
P3506
REG 5V 1
1H DL IN 2
TUNER 12V 3
P3505
1H DL OUT 1
GND 2
P3507
1H DL OUT 1
GND 2
IC3505 AN78L09
OUTPUT Tr.
OVER CURI PROTECT
POWER
REF VOLT.
AMP
STARTER
GND
FL3502 VLF0523
FL3504 VLF0526
L.P.F
FL3503 VLF0526
L.P.F
L3501 100μ
L3502 100μ
9 V
R3503 1000
R3508 22K
FL3505 ELB4H054
R3535 1000
C3511 10V47
Q3506 2SC2295 (AMP)
R3517 1000
R3509 22K
R3510 1800
L3510 VLP0053
Q3507 2SB709 (AMP)
C3559 0.1
C3567 16V10
R3573 22K
R3572 1K
Q3558 2SD601 (AMP)
R3574 22K
VR3551 5KB
1H DL LEVEL
Q3557 2SB709 (AMP)
1H DELAY CCD PACK C.B.A. (VEP03680B)
F
E
D
C
B
A
1
2
3
4
5

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

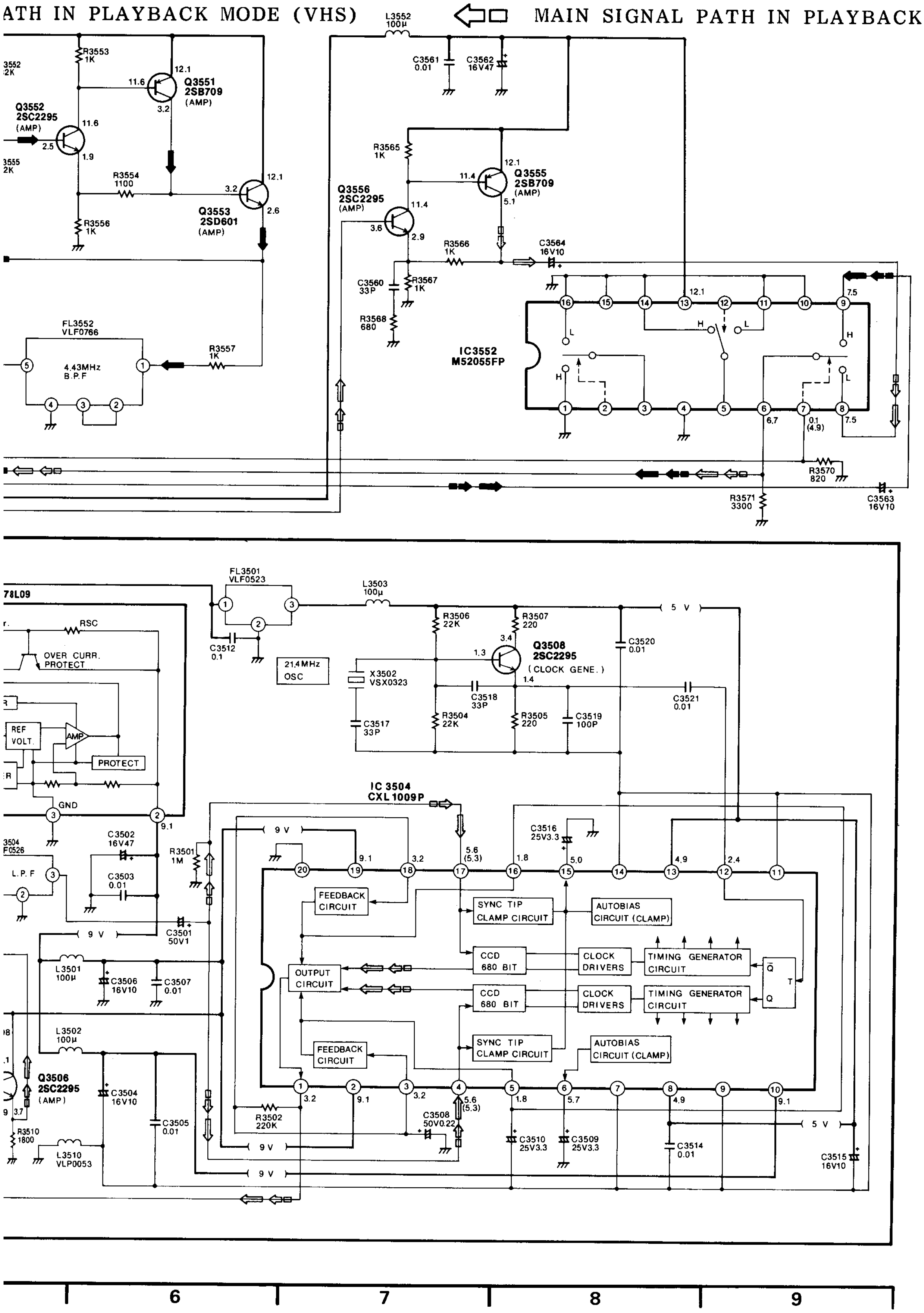
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

ATH IN REC MODE (VHS)

ATH IN PLAYBACK MODE (VHS)

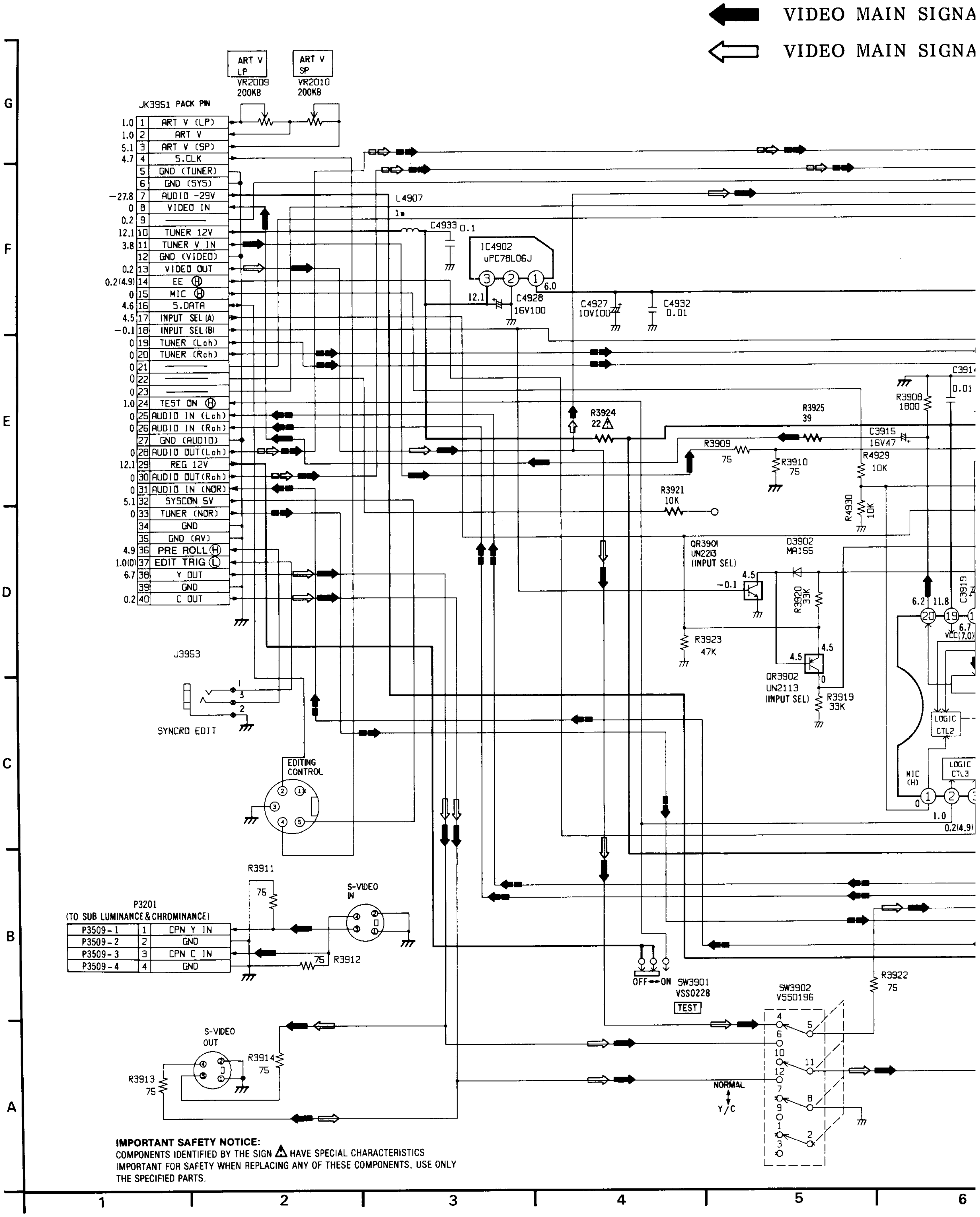
MAIN SIGNAL PATH IN REC MODE (S-VHS)

MAIN SIGNAL PATH IN PLAYBACK MODE (S-VHS)



L3552 100μ
R3553 1K
Q3551 2SB709 (AMP)
Q3552 2SC2295 (AMP)
R3554 1100
Q3553 2SD601 (AMP)
R3556 1K
C3561 0.01
C3562 16V47
R3565 1K
Q3555 2SB709 (AMP)
Q3556 2SC2295 (AMP)
R3566 1K
C3564 16V10
C3560 33P
R3567 1K
R3568 680
IC3552 M52055FP
FL3552 VLF0766
4.43MHz B.P.F
R3557 1K
R3570 820
R3571 3300
C3563 16V10
FL3501 VLF0523
L3503 100μ
78L09
RSC
OVER CURR. PROTECT
REF VOLT.
AMP
PROTECT
GND
C3512 0.1
21.4MHz OSC
X3502 VSX0323
C3517 33P
R3506 22K
R3507 220
Q3508 2SC2295 (CLOCK GENE.)
C3518 33P
R3504 22K
R3505 220
C3519 100P
C3520 0.01
C3521 0.01
5 V
IC 3504 CXL1009P
C3502 16V47
C3503 0.01
R3501 1M
C3501 50V1
9 V
C3516 25V3.3
L.P.F
FEEDBACK CIRCUIT
OUTPUT CIRCUIT
SYNC TIP CLAMP CIRCUIT
AUTOBIAS CIRCUIT (CLAMP)
CCD 680 BIT
CLOCK DRIVERS
TIMING GENERATOR CIRCUIT
L3501 100μ
C3506 16V10
C3507 0.01
L3502 100μ
Q3506 2SC2295 (AMP)
C3504 16V10
C3505 0.01
R3510 1800
L3510 VLP0053
R3502 220K
C3508 50V0.22
C3510 25V3.3
C3509 25V3.3
C3514 0.01
C3515 16V10
6
7
8
9

3-20. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


VIDEO MAIN SIGNA
VIDEO MAIN SIGNA
ART V LP
VR2009 200KB
ART V SP
VR2010 200KB
JK3951 PACK PIN
1 ART V (LP)
2 ART V
3 ART V (SP)
4 S.CLK
5 GND (TUNER)
6 GND (SYS)
7 AUDIO -29V
8 VIDEO IN
9
10 TUNER 12V
11 TUNER V IN
12 GND (VIDEO)
13 VIDEO OUT
14 EE Ⓗ
15 MIC Ⓗ
16 S.DATA
17 INPUT SEL(A)
18 INPUT SEL(B)
19 TUNER (Lch)
20 TUNER (Rch)
24 TEST ON Ⓗ
25 AUDIO IN (Lch)
26 AUDIO IN (Rch)
27 GND (AUDIO)
28 AUDIO OUT(Lch)
29 REG 12V
30 AUDIO OUT(Rch)
31 AUDIO IN (NOR)
32 SYSCON 5V
33 TUNER (NOR)
34 GND
35 GND (AV)
36 PRE ROLL Ⓗ
37 EDIT TRIG Ⓛ
38 Y OUT
39 GND
40 C OUT
L4907 1m
C4933 0.1
IC4902 uPC78L06J
C4928 16V100
C4927 10V100
C4932 0.01
R3924 22
R3925 39
R3909 75
R3910 75
R3921 10K
C3915 16V47
R4929 10K
R4930 10K
R3908 1800
C3914 0.01
QR3901 UN2213 (INPUT SEL)
D3902 MA155
R3920 33K
R3923 47K
QR3902 UN2113 (INPUT SEL)
R3919 33K
LOGIC CTL2
LOGIC CTL3
MIC (H)
VCC(7.0)
J3953
SYNCRO EDIT
EDITING CONTROL
R3911 75
S-VIDEO IN
P3201 (TO SUB LUMINANCE&CHROMINANCE)
P3509-1 1 CPN Y IN
P3509-2 2 GND
P3509-3 3 CPN C IN
P3509-4 4 GND
R3912 75
OFF↔ON SW3901 VSS0228 TEST
SW3902 VSS0196
NORMAL Y/C
R3922 75
S-VIDEO OUT
R3914 75
R3913 75
G F E D C B A
1 2 3 4 5 6

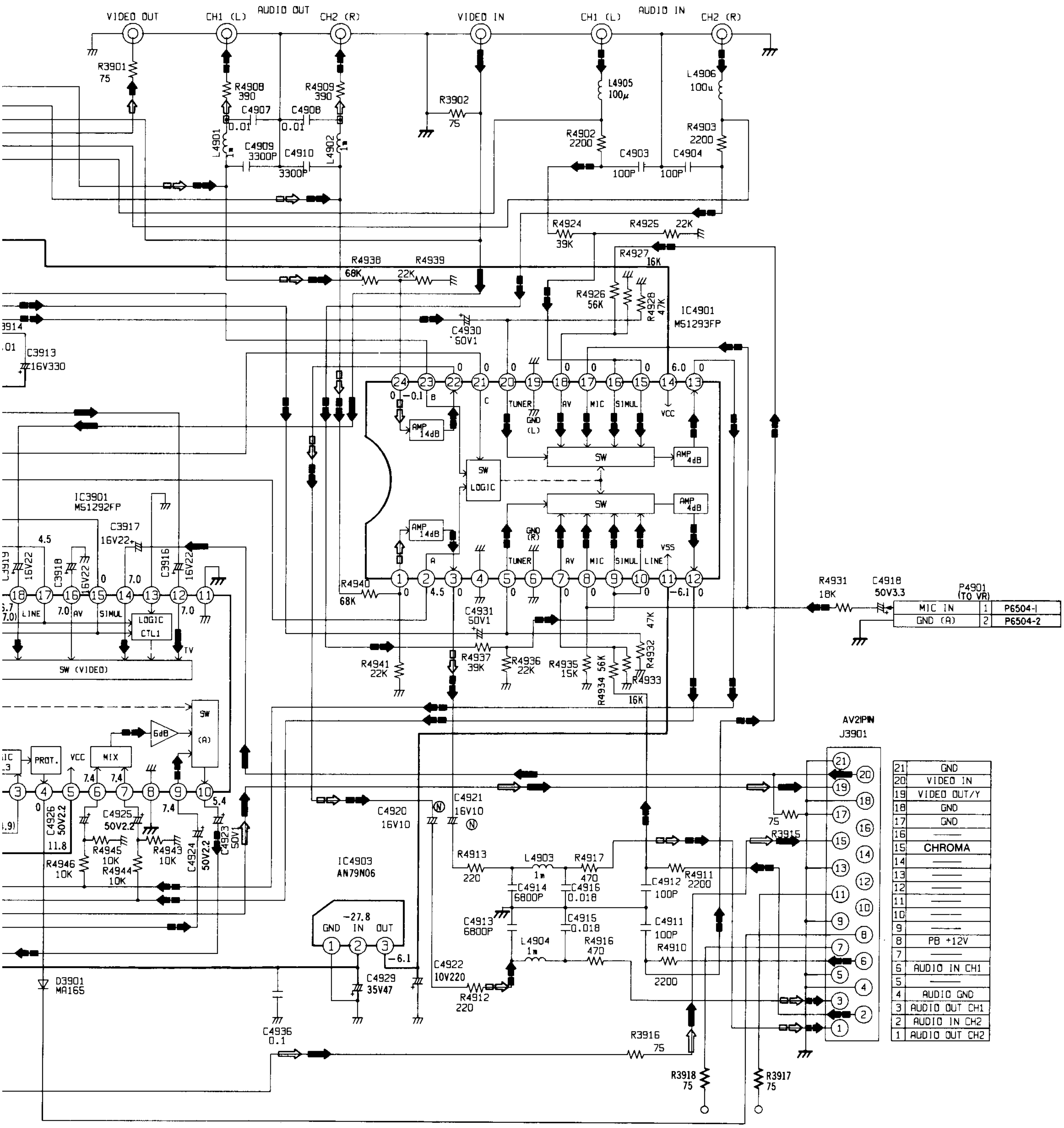
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

NAL PATH IN REC MODE

NAL PATH IN PLAYBACK MODE

◀■ AUDIO MAIN SIGNAL PATH IN REC MODE

◁□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

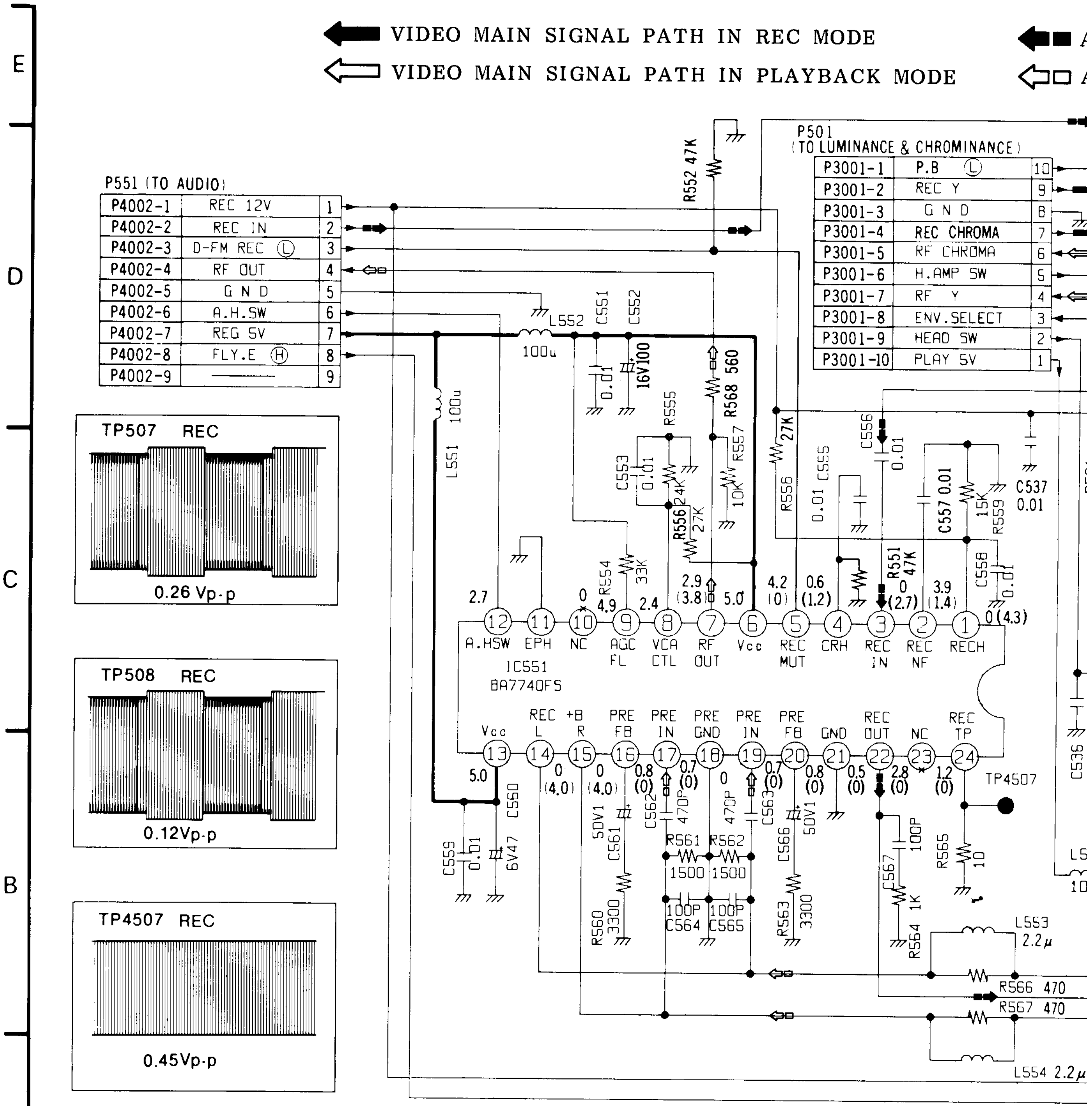

VIDEO OUT
AUDIO OUT
CH1 (L)
CH2 (R)
VIDEO IN
AUDIO IN
CH1 (L)
CH2 (R)
R3901 75
R4908 390
R4909 390
C4907 0.01
C4908 0.01
L4901 1m
L4902 1m
C4909 3300P
C4910 3300P
R3902 75
L4905 100μ
L4906 100u
R4902 2200
R4903 2200
C4903 100P
C4904 100P
R4924 39K
R4925 22K
R4927 16K
R4926 56K
R4928 47K
R4938 68K
R4939 22K
C4930 50V1
IC4901
M51293FP
TUNER
GND (L)
AV
MIC
SIMUL
VCC
SW
AMP 4dB
AMP 14dB
SW LOGIC
GND (R)
LINE
VSS
R4940 68K
R4941 22K
C4931 50V1
R4937 39K
R4936 22K
R4935 15K
R4934 56K
R4932 47K
R4933 16K
3914
.01
C3913
16V330
IC3901
M51292FP
C3917
16V22
C3918
C3916
16V22
LOGIC CTL1
SW (VIDEO)
TV
SW (A)
6dB
PROT.
MIX
VCC
C4925 50V2.2
C4926 50V2.2
R4946 10K
R4945 10K
R4944 10K
R4943 10K
C4924 50V2.2
C4923 50V1
D3901
MA165
C4936 0.1
C4920 16V10
C4921 16V10
IC4903
AN79N06
-27.8
GND IN OUT
C4929 35V47
C4922 10V220
R4912 220
R4913 220
L4903 1m
L4904 1m
C4914 6800P
C4913 6800P
C4916 0.018
C4915 0.018
R4917 470
R4916 470
C4912 100P
C4911 100P
R4911 2200
R4910 2200
R3916 75
R3918 75
R3917 75
R3915 75
AV21PIN
J3901
R4931 18K
C4918 50V3.3
P4901 (TO VR)
MIC IN 1 P6504-1
GND (A) 2 P6504-2

21	GND
20	VIDEO IN
19	VIDEO OUT/Y
18	GND
17	GND
16	——
15	CHROMA
14	——
13	——
12	——
11	——
10	——
9	——
8	PB +12V
7	——
6	AUDIO IN CH1
5	——
4	AUDIO GND
3	AUDIO OUT CH1
2	AUDIO IN CH2
1	AUDIO OUT CH2

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (S-VHS; SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (S-VHS; SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-22. HEAD AMP SCHEMATIC DIAGRAM

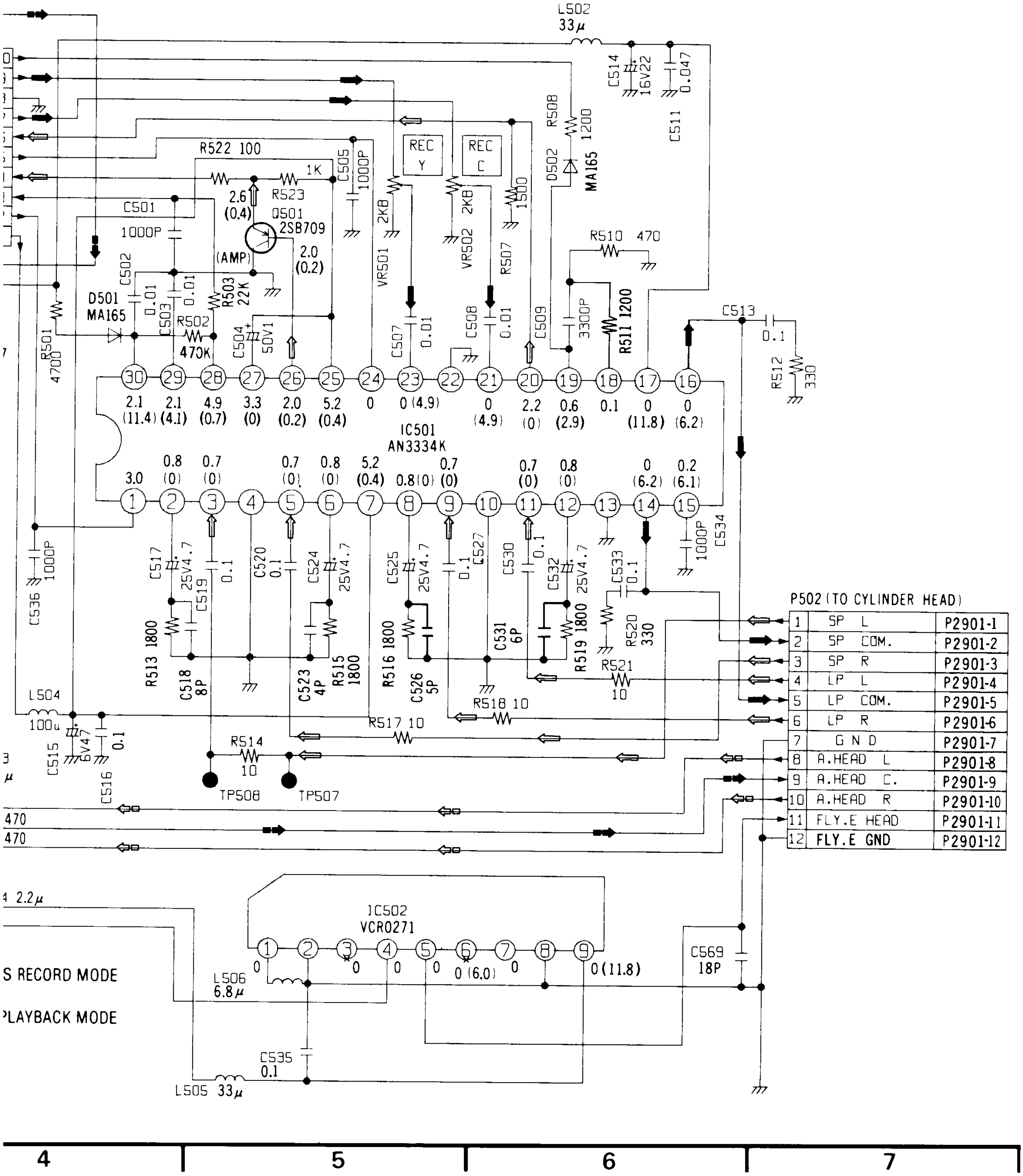

E
D
C
B
A
VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
P551 (TO AUDIO)
P4002-1 REC 12V 1
P4002-2 REC IN 2
P4002-3 D-FM REC Ⓛ 3
P4002-4 RF OUT 4
P4002-5 G N D 5
P4002-6 A.H.SW 6
P4002-7 REG 5V 7
P4002-8 FLY.E Ⓗ 8
P4002-9 9
P501 (TO LUMINANCE & CHROMINANCE)
P3001-1 P.B Ⓛ 10
P3001-2 REC Y 9
P3001-3 G N D 8
P3001-4 REC CHROMA 7
P3001-5 RF CHROMA 6
P3001-6 H.AMP SW 5
P3001-7 RF Y 4
P3001-8 ENV.SELECT 3
P3001-9 HEAD SW 2
P3001-10 PLAY 5V 1
R552 47K
L552 100u
C551 0.01
C552 16V100
L551 100u
R555 24K
C553 0.01
R556 27K
R557 10K
R568 560
R558 27K
C555 0.01
C556 0.01
C557 0.01
R559 15K
C537 0.01
C558 0.01
R554 33K
R551 47K
TP507 REC
0.26 Vp-p
TP508 REC
0.12Vp-p
TP4507 REC
0.45Vp-p
IC551 BA7740FS
A.HSW EPH NC AGC FL VCA CTL RF OUT Vcc REC MUT CRH REC IN REC NF RECH
Vcc REC L +B R PRE FB PRE IN PRE GND PRE IN PRE FB GND REC OUT NC REC TP
2.7 0 4.9 2.4 2.9 (3.8) 5.0 4.2 (0) 0.6 (1.2) 0 (2.7) 3.9 (1.4) 0 (4.3)
5.0 0 (4.0) 0 (4.0) 0.8 (0) 0.7 (0) 0 0.7 (0) 0.8 (0) 0.5 (0) 2.8 (0) 1.2 (0)
TP4507
C559 0.01
C560 6V47
C561 50V1
R560 3300
C562 470P
C563 470P
R561 1500
R562 1500
C564 100P
C565 100P
C566 50V1
R563 3300
C567 100P
R564 1K
R565 10
L553 2.2μ
R566 470
R567 470
L554 2.2μ
C536
1
2
3
4

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS REC
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYB
WITH PAL COLOUR SIGNAL. (S-VHS: SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

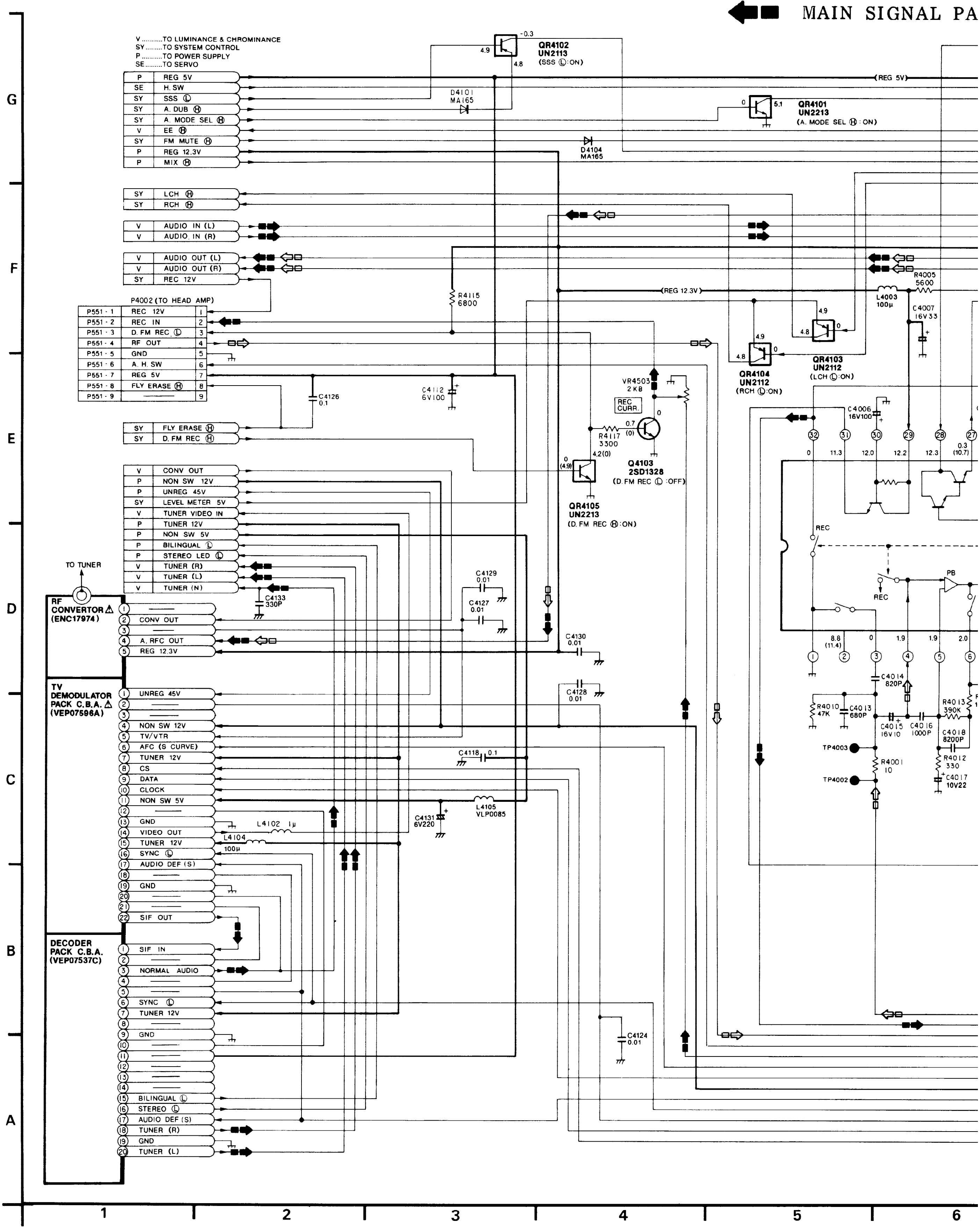
■ AUDIO MAIN SIGNAL PATH IN REC MODE

□ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

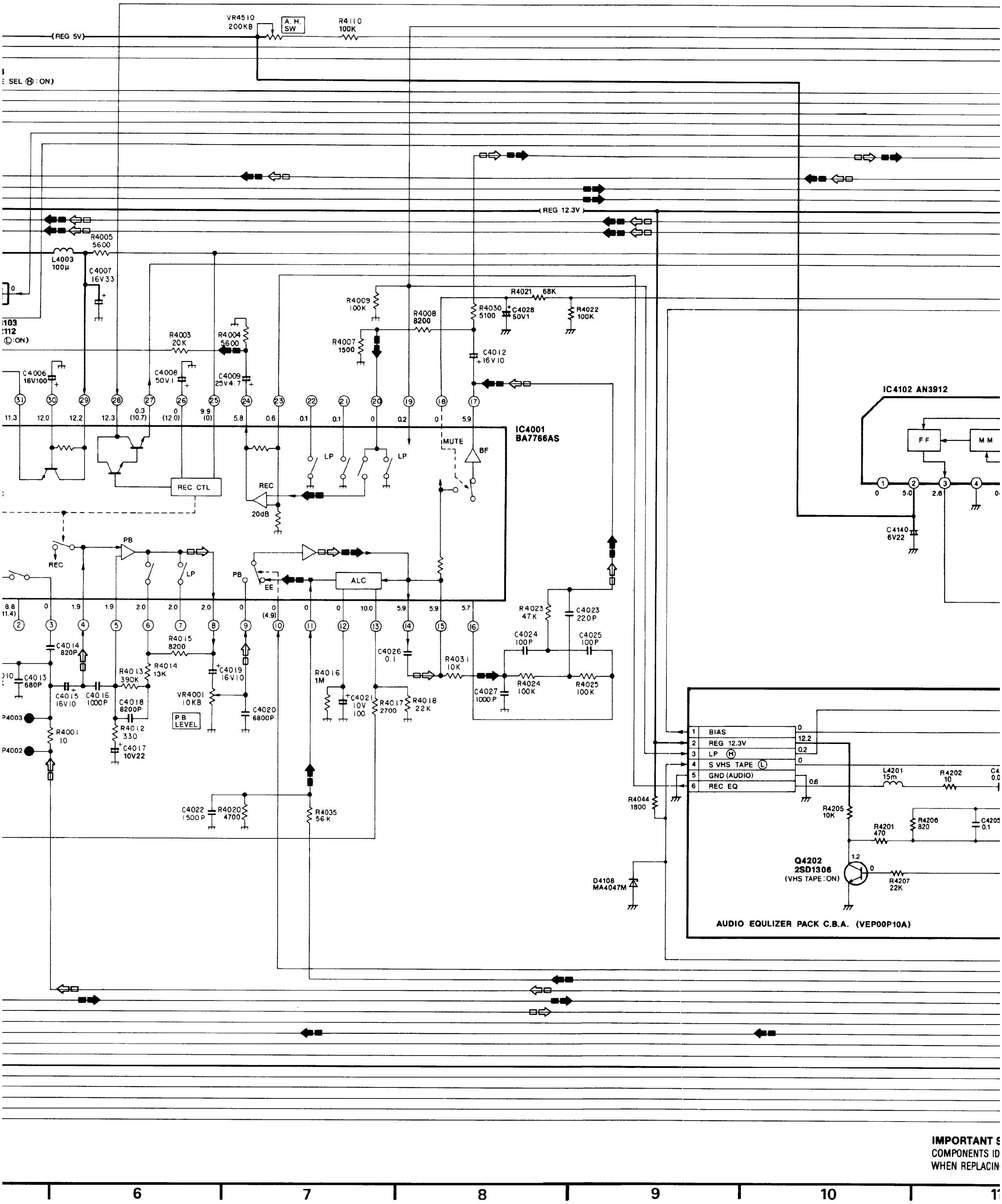


L502 33μ
C514 16V22
C511 0.047
R508 1200
D502 MA165
REC Y
REC C
R522 100
R523 1K
C505 1000P
Q501 2SB709
(AMP)
2.6 (0.4)
2.0 (0.2)
C501 1000P
C502 0.01
C503 0.01
R503 22K
R502 470K
C504 50V1
D501 MA165
R501 4700
VR501 2KB
VR502 2KB
R507 1500
C507 0.01
C508 0.01
C509 3300P
R510 470
R511 1200
C513 0.1
R512 330
IC501 AN3334K
30: 2.1 (11.4)
29: 2.1 (4.1)
28: 4.9 (0.7)
27: 3.3 (0)
26: 2.0 (0.2)
25: 5.2 (0.4)
24: 0
23: 0 (4.9)
21: 0 (4.9)
20: 2.2 (0)
19: 0.6 (2.9)
18: 0.1
17: 0 (11.8)
16: 0 (6.2)
1: 3.0
2: 0.8 (0)
3: 0.7 (0)
5: 0.7 (0)
6: 0.8 (0)
7: 5.2 (0.4)
8: 0.8 (0)
9: 0.7 (0)
11: 0.7 (0)
12: 0.8 (0)
14: 0 (6.2)
15: 0.2 (6.1)
C536 1000P
C517 25V4.7
C519
C520 0.1
C524 25V4.7
C525 25V4.7
C527 0.1
C530 0.1
C532 25V4.7
C533 0.1
C534 1000P
R513 1800
C518 8P
C523 4P
R515 1800
R516 1800
C526 5P
C531 6P
R519 1800
R520 330
R521 10
R518 10
R517 10
R514 10
TP508
TP507
L504 100μ
C515 6V47
C516 0.1
470
470
P502 (TO CYLINDER HEAD)
1 SP L P2901-1
2 SP COM. P2901-2
3 SP R P2901-3
4 LP L P2901-4
5 LP COM. P2901-5
6 LP R P2901-6
7 GND P2901-7
8 A.HEAD L P2901-8
9 A.HEAD C. P2901-9
10 A.HEAD R P2901-10
11 FLY.E HEAD P2901-11
12 FLY.E GND P2901-12
2.2μ
IC502 VCR0271
0 0 0 0 0 (6.0) 0 0 (11.8)
L506 6.8μ
C569 18P
C535 0.1
L505 33μ
S RECORD MODE
LAYBACK MODE
4
5
6
7

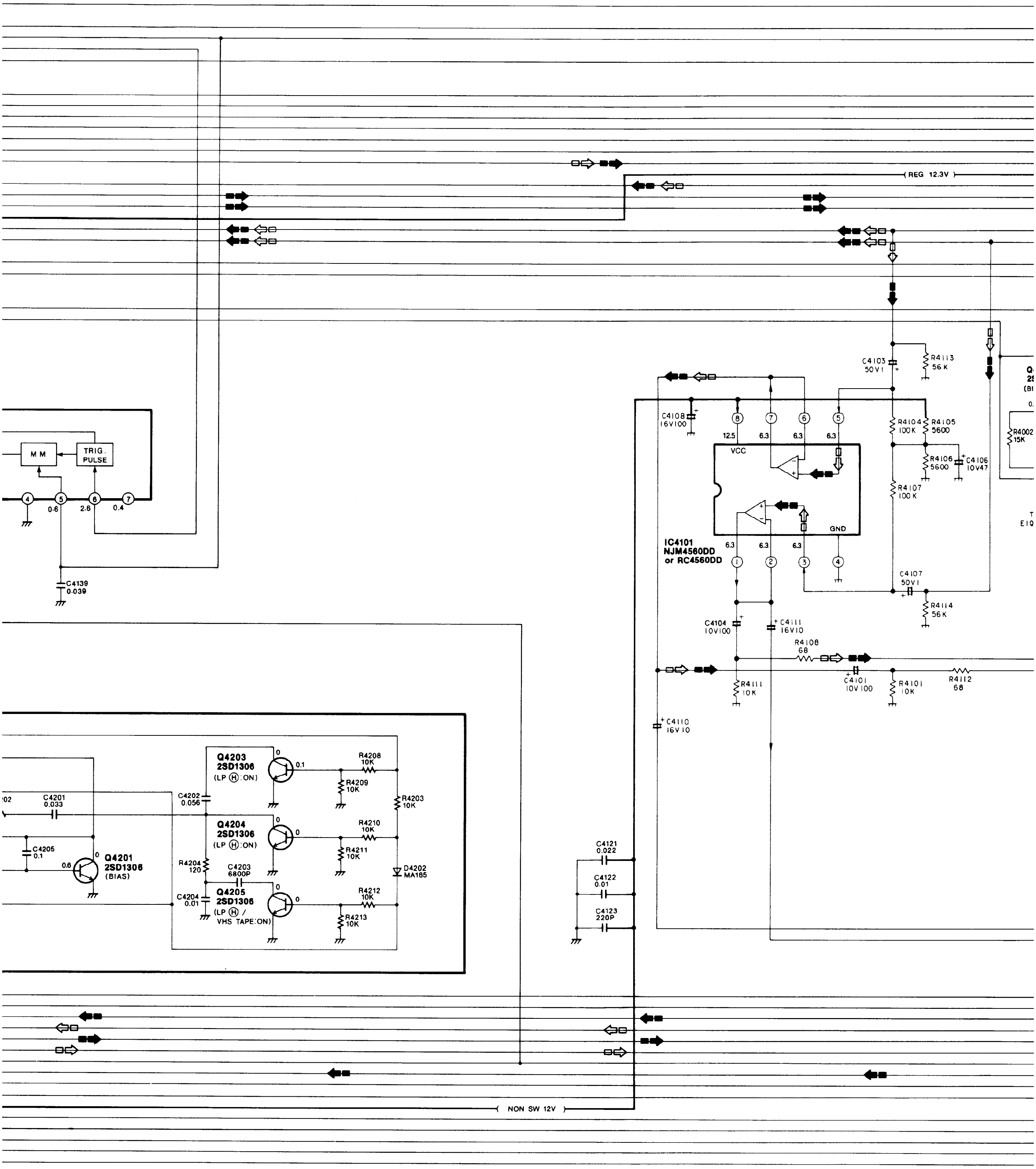
3-24. AUDIO SCHEMATIC DIAGRAM


MAIN SIGNAL PA
V..........TO LUMINANCE & CHROMINANCE
SY.........TO SYSTEM CONTROL
P..........TO POWER SUPPLY
SE.........TO SERVO
P REG 5V
SE H. SW
SY SSS Ⓛ
SY A. DUB Ⓗ
SY A. MODE SEL Ⓗ
V EE Ⓗ
SY FM MUTE Ⓗ
P REG 12.3V
P MIX Ⓗ
SY LCH Ⓗ
SY RCH Ⓗ
V AUDIO IN (L)
V AUDIO IN (R)
V AUDIO OUT (L)
V AUDIO OUT (R)
SY REC 12V
P4002 (TO HEAD AMP)
P551 - 1 REC 12V 1
P551 - 2 REC IN 2
P551 - 3 D. FM REC Ⓛ 3
P551 - 4 RF OUT 4
P551 - 5 GND 5
P551 - 6 A. H. SW 6
P551 - 7 REG 5V 7
P551 - 8 FLY ERASE Ⓗ 8
P551 - 9 9
SY FLY ERASE Ⓗ
SY D. FM REC Ⓗ
V CONV OUT
P NON SW 12V
P UNREG 45V
SY LEVEL METER 5V
V TUNER VIDEO IN
P TUNER 12V
P NON SW 5V
P BILINGUAL Ⓛ
P STEREO LED Ⓛ
V TUNER (R)
V TUNER (L)
V TUNER (N)
TO TUNER
RF CONVERTOR ⚠ (ENC17974)
① ② CONV OUT ③ ④ A. RFC OUT ⑤ REG 12.3V
TV DEMODULATOR PACK C.B.A. ⚠ (VEP07596A)
① UNREG 45V ② ③ ④ NON SW 12V ⑤ TV/VTR ⑥ AFC (S CURVE) ⑦ TUNER 12V ⑧ CS ⑨ DATA ⑩ CLOCK ⑪ NON SW 5V ⑫ ⑬ GND ⑭ VIDEO OUT ⑮ TUNER 12V ⑯ SYNC Ⓛ ⑰ AUDIO DEF (S) ⑱ ⑲ GND ⑳ ㉑ ㉒ SIF OUT
DECODER PACK C.B.A. (VEP07537C)
① SIF IN ② ③ NORMAL AUDIO ④ ⑤ ⑥ SYNC Ⓛ ⑦ TUNER 12V ⑧ ⑨ GND ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ BILINGUAL Ⓛ ⑯ STEREO Ⓛ ⑰ AUDIO DEF (S) ⑱ TUNER (R) ⑲ GND ⑳ TUNER (L)
QR4102 UN2113 (SSS Ⓛ:ON) -0.3 4.9 4.8
D4101 MA165
D4104 MA165
QR4101 UN2213 (A. MODE SEL Ⓗ:ON) 0 5.1
REG 5V
REG 12.3V
R4115 6800
C4126 0.1
C4112 6V100
VR4503 2K B
REC CURR.
R4117 3300 0.7 (0)
Q4103 2SD1328 (D. FM REC Ⓛ:OFF) 0 4.2(0)
QR4105 UN2213 (D. FM REC Ⓗ:ON) 0 (4.9)
QR4104 UN2112 (RCH Ⓛ:ON) 4.9 4.8 0
QR4103 UN2112 (LCH Ⓛ:ON) 4.9 4.8 0
L4003 100μ
R4005 5600
C4007 16V33
C4006 16V100
㉜ ㉛ ㉚ ㉙ ㉘ ㉗
0 11.3 12.0 12.2 12.3 0.3 (10.7)
REC
PB
REC
8.8 (11.4) 0 1.9 1.9 2.0
① ② ③ ④ ⑤ ⑥
C4014 820P
R4010 47K
C4013 680P
C4015 16V10
C4016 1000P
R4013 390K
C4018 8200P
R4012 330
C4017 10V22
TP4003
TP4002
R4001 10
C4129 0.01
C4127 0.01
C4133 330P
C4130 0.01
C4128 0.01
C4118 0.1
C4131 6V220
L4105 VLP0085
L4102 1μ
L4104 100μ
C4124 0.01
G F E D C B A
1 2 3 4 5 6

ıIN SIGNAL PATH IN REC MODE ⇦▭ MAIN SIGNAL PATH IN PLAYBACK MODE


VR4510 200KB
A. H. SW
R4110 100K
(REG 5V)
SEL Ⓗ:ON)
(REG 12.3V)
R4005 5600
L4003 100μ
C4007 16V33
103
112
Ⓛ:ON)
R4003 20K
R4004 5600
C4006 16V100
C4008 50V1
C4009 25V4.7
R4009 100K
R4007 1500
R4008 8200
R4030 5100
C4028 50V1
R4021 68K
R4022 100K
C4012 16V10
11.3
12.0
12.2
12.3
0.3 (10.7)
0 (12.0)
9.9 (0)
5.8
0.6
0.1
0.1
0
0.2
0
5.9
IC4001 BA7766AS
LP
LP
MUTE
BF
REC CTL
REC
20dB
PB
REC
LP
PB
EE
ALC
8.8 (11.4)
0
1.9
1.9
2.0
2.0
2.0
0
0 (4.9)
0
0
10.0
5.9
5.9
5.7
C4014 820P
C4013 680P
C4015 16V10
C4016 1000P
R4013 390K
R4014 13K
R4015 8200
C4018 8200P
R4012 330
C4017 10V22
C4019 16V10
VR4001 10KB
P.B LEVEL
C4020 6800P
P4003
P4002
R4001 10
R4016 1M
C4021 10V 100
R4017 2700
R4018 22K
C4026 0.1
R4031 10K
C4027 1000P
R4023 47K
C4023 220P
C4024 100P
C4025 100P
R4024 100K
R4025 100K
C4022 1500P
R4020 4700
R4035 56K
IC4102 AN3912
FF
MM
0
5.0
2.6
C4140 6V22
1 BIAS
2 REG 12.3V
3 LP Ⓗ
4 S VHS TAPE Ⓛ
5 GND (AUDIO)
6 REC EQ
0
12.2
0.2
0
0.6
R4044 1800
D4108 MA4047M
L4201 15m
R4202 10
R4205 10K
R4201 470
R4206 820
C4205 0.1
Q4202 2SD1306 (VHS TAPE: ON)
1.2
0
R4207 22K
AUDIO EQULIZER PACK C.B.A. (VEP00P10A)
6
7
8
9
10

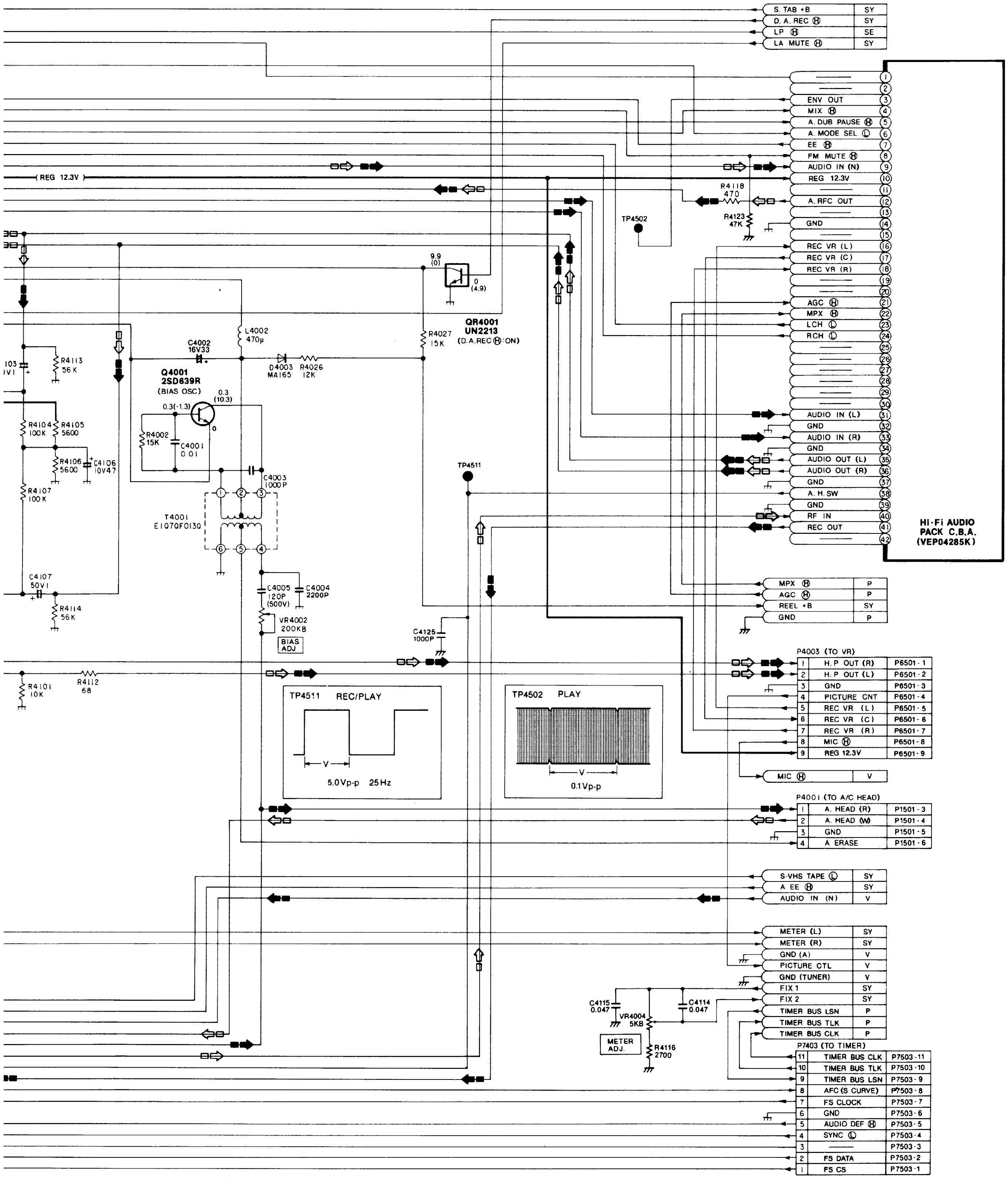
IMPORTANT S
COMPONENTS ID
WHEN REPLACIN


REG 12.3V
MM
TRIG. PULSE
4
5
6
7
0.6
2.6
0.4
C4139
0.039
Q4203
2SD1306
(LP Ⓗ:ON)
0
0.1
R4208
10K
R4209
10K
R4203
10K
C4202
0.056
C4201
0.033
C4205
0.1
Q4201
2SD1306
(BIAS)
0.6
0
Q4204
2SD1306
(LP Ⓗ:ON)
R4210
10K
R4211
10K
D4202
MA165
R4204
120
C4203
6800P
Q4205
2SD1306
(LP Ⓗ /
VHS TAPE:ON)
C4204
0.01
R4212
10K
R4213
10K
C4121
0.022
C4122
0.01
C4123
220P
NON SW 12V
C4103
50V1
R4113
56K
C4108
16V100
8
7
6
5
12.5
6.3
6.3
6.3
VCC
GND
IC4101
NJM4560DD
or RC4560DD
1
2
3
4
R4104
100K
R4105
5600
R4106
5600
C4106
10V47
R4107
100K
C4107
50V1
R4114
56K
C4104
10V100
C4111
16V10
R4108
68
R4111
10K
C4101
10V100
R4101
10K
R4112
68
C4110
16V10
R4002
15K
Q
2S
(BI
0.
T
E1Q

'ORTANT SAFETY NOTICE:
IPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
:N REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE
DC VOLTAGES ARE FOLLOWING CONDITION.
(S-VHS: SP MODE)

11 | 12 | 13 | 14 | 15 | 16


S. TAB +B SY
D. A. REC Ⓗ SY
LP Ⓗ SE
LA MUTE Ⓗ SY
ENV OUT
MIX Ⓗ
A. DUB PAUSE Ⓗ
A. MODE SEL Ⓛ
EE Ⓗ
FM MUTE Ⓗ
AUDIO IN (N)
REG 12.3V
A. RFC OUT
GND
REC VR (L)
REC VR (C)
REC VR (R)
AGC Ⓗ
MPX Ⓗ
LCH Ⓛ
RCH Ⓛ
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
A. H SW
RF IN
REC OUT
HI-Fi AUDIO PACK C.B.A. (VEP04285K)
REG 12.3V
R4118 470
R4123 47K
TP4502
9.9 (0)
0 (4.9)
QR4001 UN2213 (D.A.REC Ⓗ:ON)
R4027 15K
L4002 470µ
C4002 16V33
D4003 MA165
R4026 12K
Q4001 2SD639R (BIAS OSC)
0.3 (10.3)
0.3(-1.3)
R4002 15K
C4001 0.01
C4003 1000P
T4001 E1Q7QF0130
R4113 56K
R4104 100K
R4105 5600
R4106 5600
C4106 10V47
R4107 100K
C4107 50V1
R4114 56K
C4005 120P (500V)
C4004 2200P
VR4002 200KB
BIAS ADJ
TP4511
C4125 1000P
R4101 10K
R4112 68
MPX Ⓗ P
AGC Ⓗ P
REEL +B SY
GND P
P4003 (TO VR)
H.P OUT (R) P6501-1
H.P OUT (L) P6501-2
GND P6501-3
PICTURE CNT P6501-4
REC VR (L) P6501-5
REC VR (C) P6501-6
REC VR (R) P6501-7
MIC Ⓗ P6501-8
REG 12.3V P6501-9
MIC Ⓗ V
TP4511 REC/PLAY
V
5.0Vp-p 25Hz
TP4502 PLAY
V
0.1Vp-p
P4001 (TO A/C HEAD)
A. HEAD (R) P1501-3
A. HEAD (W) P1501-4
GND P1501-5
A ERASE P1501-6
S-VHS TAPE Ⓛ SY
A EE Ⓗ SY
AUDIO IN (N) V
METER (L) SY
METER (R) SY
GND (A) V
PICTURE CTL V
GND (TUNER) V
FIX 1 SY
FIX 2 SY
TIMER BUS LSN P
TIMER BUS TLK P
TIMER BUS CLK P
C4115 0.047
C4114 0.047
VR4004 5KB
METER ADJ.
R4116 2700
P7403 (TO TIMER)
TIMER BUS CLK P7503-11
TIMER BUS TLK P7503-10
TIMER BUS LSN P7503-9
AFC (S CURVE) P7503-8
FS CLOCK P7503-7
GND P7503-6
AUDIO DEF Ⓗ P7503-5
SYNC Ⓛ P7503-4
P7503-3
FS DATA P7503-2
FS CS P7503-1

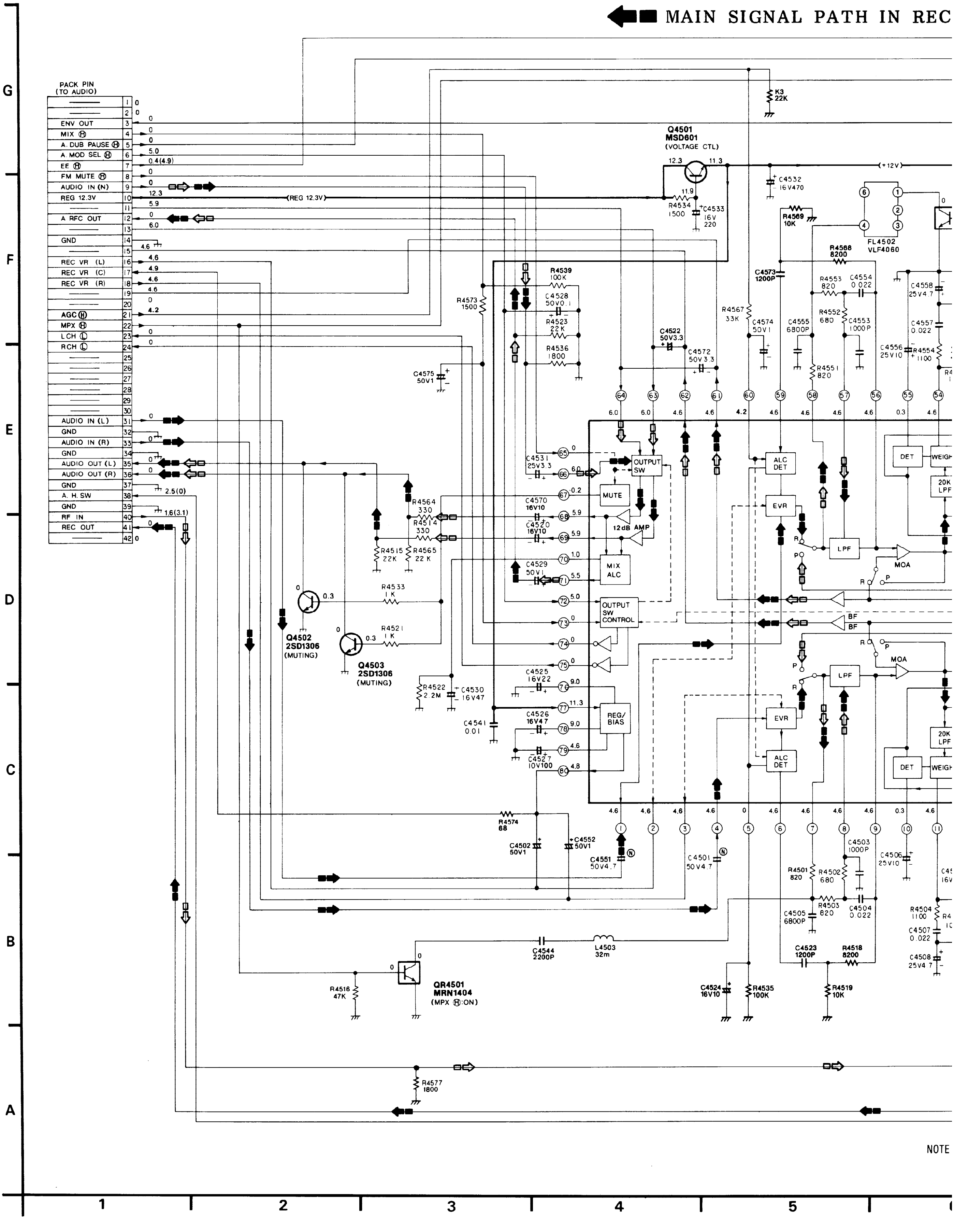
JREMENT MODE OF THE
IES ARE FOLLOWING CONDITION.
› MODE)

- LINE IN SIGNAL LEVEL...−10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS (   )
  PLAY...WITHOUT BRACKETS

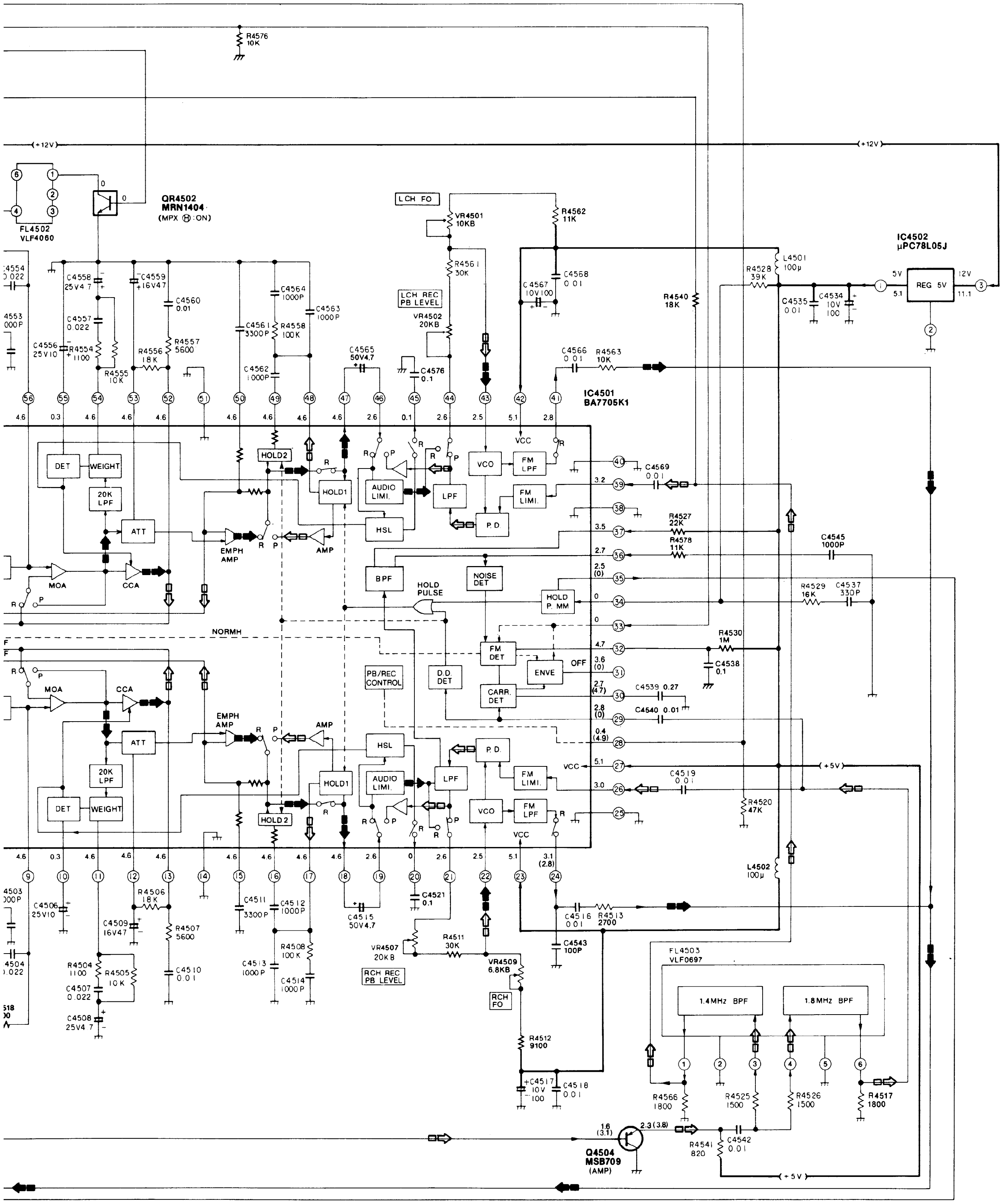
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

16 17 18 19 20 21

3-26. Hi-Fi AUDIO PACK SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC
PACK PIN (TO AUDIO)
1
2
ENV OUT 3
MIX Ⓗ 4
A. DUB PAUSE Ⓗ 5
A MOD SEL Ⓗ 6
EE Ⓗ 7
FM MUTE Ⓗ 8
AUDIO IN (N) 9
REG 12.3V 10
11
A RFC OUT 12
13
GND 14
15
REC VR (L) 16
REC VR (C) 17
REC VR (R) 18
19
20
AGC Ⓗ 21
MPX Ⓗ 22
LCH Ⓛ 23
RCH Ⓛ 24
25
26
27
28
29
30
AUDIO IN (L) 31
GND 32
AUDIO IN (R) 33
GND 34
AUDIO OUT (L) 35
AUDIO OUT (R) 36
GND 37
A. H. SW 38
GND 39
RF IN 40
REC OUT 41
42
(REG 12.3V)
Q4501 MSD601 (VOLTAGE CTL)
12.3
11.3
11.9
R4534 1500
C4533 16V 220
(+12V)
C4532 16V470
K3 22K
R4569 10K
FL4502 VLF4060
R4568 8200
C4573 1200P
R4553 820
C4554 0.022
R4552 680
C4553 1000P
C4555 6800P
R4551 820
R4567 33K
C4574 50V1
C4558 25V4.7
C4557 0.022
C4556 25V10
R4554 1100
R4539 100K
C4528 50V0.1
R4523 22K
R4536 1800
R4573 1500
C4522 50V3.3
C4572 50V3.3
C4575 50V1
C4531 25V3.3
C4570 16V10
C4520 16V10
R4564 330
R4514 330
R4515 22K
R4565 22K
C4529 50V1
R4533 1K
R4521 1K
Q4502 2SD1306 (MUTING)
Q4503 2SD1306 (MUTING)
R4522 2.2M
C4530 16V47
C4541 0.01
C4525 16V22
C4526 16V47
C4527 10V100
OUTPUT SW
MUTE
12dB AMP
MIX ALC
OUTPUT SW CONTROL
REG/ BIAS
ALC DET
EVR
LPF
MOA
BF
DET
WEIGH
20K LPF
R
P
R4574 68
C4502 50V1
C4552 50V1
C4551 50V4.7
C4501 50V4.7
Ⓝ
R4501 820
R4502 680
C4503 1000P
C4506 25V10
R4503 820
C4504 0.022
C4505 6800P
R4504 1100
C4507 0.022
C4508 25V4.7
C4523 1200P
R4518 8200
C4524 16V10
R4535 100K
R4519 10K
C4544 2200P
L4503 32m
QR4501 MRN1404 (MPX Ⓗ:ON)
R4516 47K
R4577 1800
2.5(0)
1.6(3.1)
NOTE
G
F
E
D
C
B
A
1
2
3
4
5

H IN REC MODE ⇦ MAIN SIGNAL PATH IN PLAYBACK MODE


R4576 10K
(+12V)
QR4502 MRN1404 (MPX Ⓗ:ON)
FL4502 VLF4060
LCH FO
VR4501 10KB
R4562 11K
R4561 30K
LCH REC PB LEVEL
VR4502 20KB
C4567 10V100
C4568 0.01
C4576 0.1
C4565 50V4.7
C4566 0.01
R4563 10K
R4540 18K
R4528 39K
L4501 100µ
C4535 0.01
C4534 10V 100
IC4502 µPC78L05J
REG 5V
5V
12V
5.1
11.1
C4554 0.022
C4553 1000P
C4556 25V10
C4558 25V4.7
C4557 0.022
R4554 1100
R4555 10K
C4559 16V47
R4556 18K
C4560 0.01
R4557 5600
C4561 3300P
C4562 1000P
R4558 100K
C4564 1000P
C4563 1000P
IC4501 BA7705K1
DET
WEIGHT
20K LPF
ATT
MOA
CCA
EMPH AMP
AMP
HOLD2
HOLD1
AUDIO LIMI.
LPF
HSL
VCO
FM LPF
FM LIMI.
P.D
BPF
HOLD PULSE
NOISE DET
HOLD P. MM
FM DET
ENVE
OFF
D.D. DET
PB/REC CONTROL
CARR. DET
NORMH
VCC
C4569 0.01
R4527 22K
R4578 11K
C4545 1000P
R4529 16K
C4537 330P
R4530 1M
C4538 0.1
C4539 0.27
C4540 0.01
C4519 0.01
(+5V)
R4520 47K
L4502 100µ
C4503 1000P
C4506 25V10
C4509 16V47
R4506 18K
R4507 5600
C4510 0.01
R4504 1100
R4505 10K
C4507 0.022
C4508 25V4.7
C4504 0.022
C4511 3300P
C4512 1000P
C4513 1000P
R4508 100K
C4514 1000P
C4515 50V4.7
C4521 0.1
VR4507 20KB
RCH REC PB LEVEL
R4511 30K
VR4509 6.8KB
RCH FO
R4512 9100
C4517 10V 100
C4518 0.01
C4516 0.01
R4513 2700
C4543 100P
FL4503 VLF0697
1.4MHz BPF
1.8MHz BPF
R4566 1800
R4525 1500
R4526 1500
R4517 1800
Q4504 MSB709 (AMP)
R4541 820
C4542 0.01
1.6 (3.1)
2.3 (3.8)

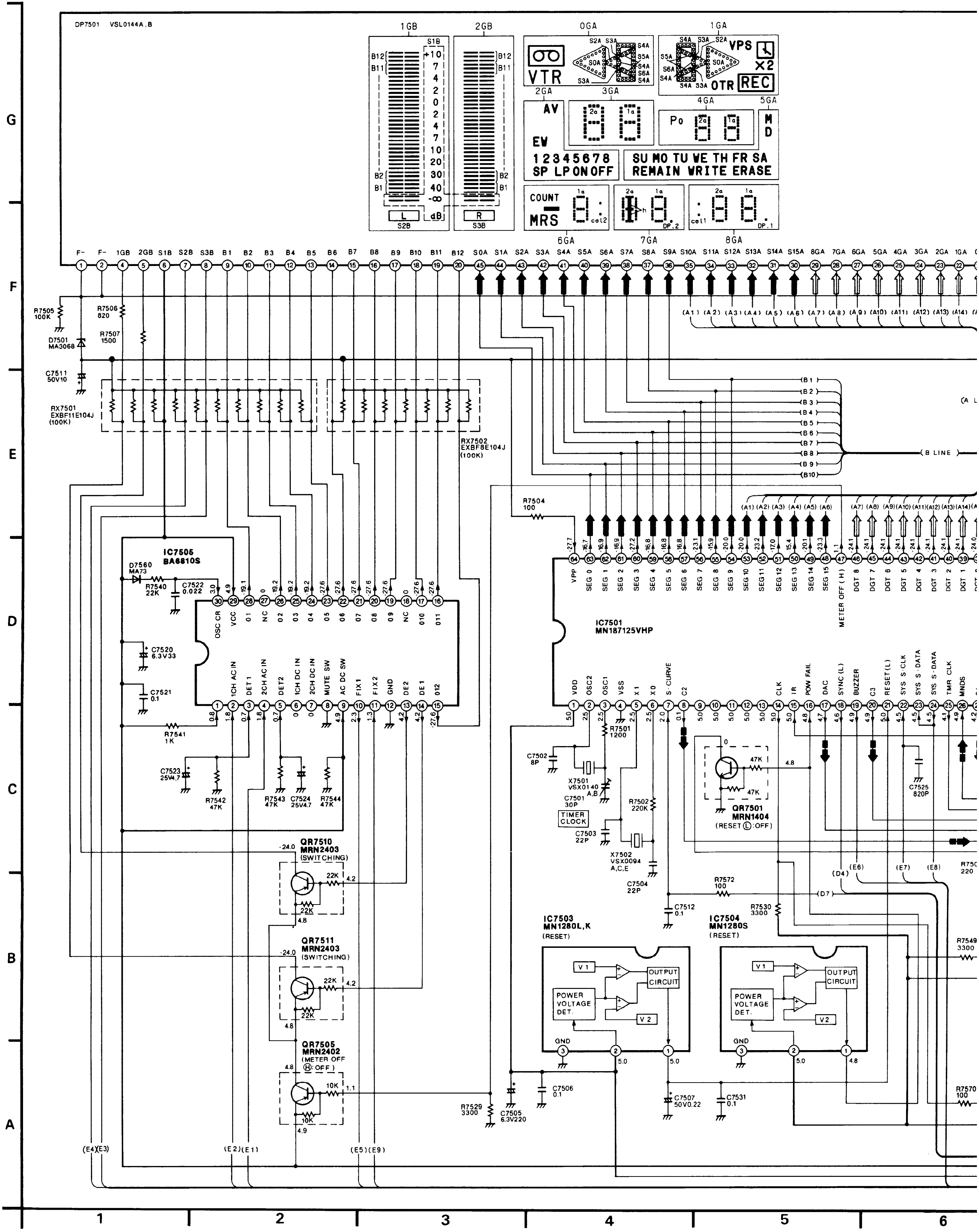
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION. (SP MODE)

- LINE IN SIGNAL LEVEL... −10dB 1kHz
- MEASUREMENT MODE
  REC...BRACKETS ( )
  PLAY...WITHOUT BRACKETS

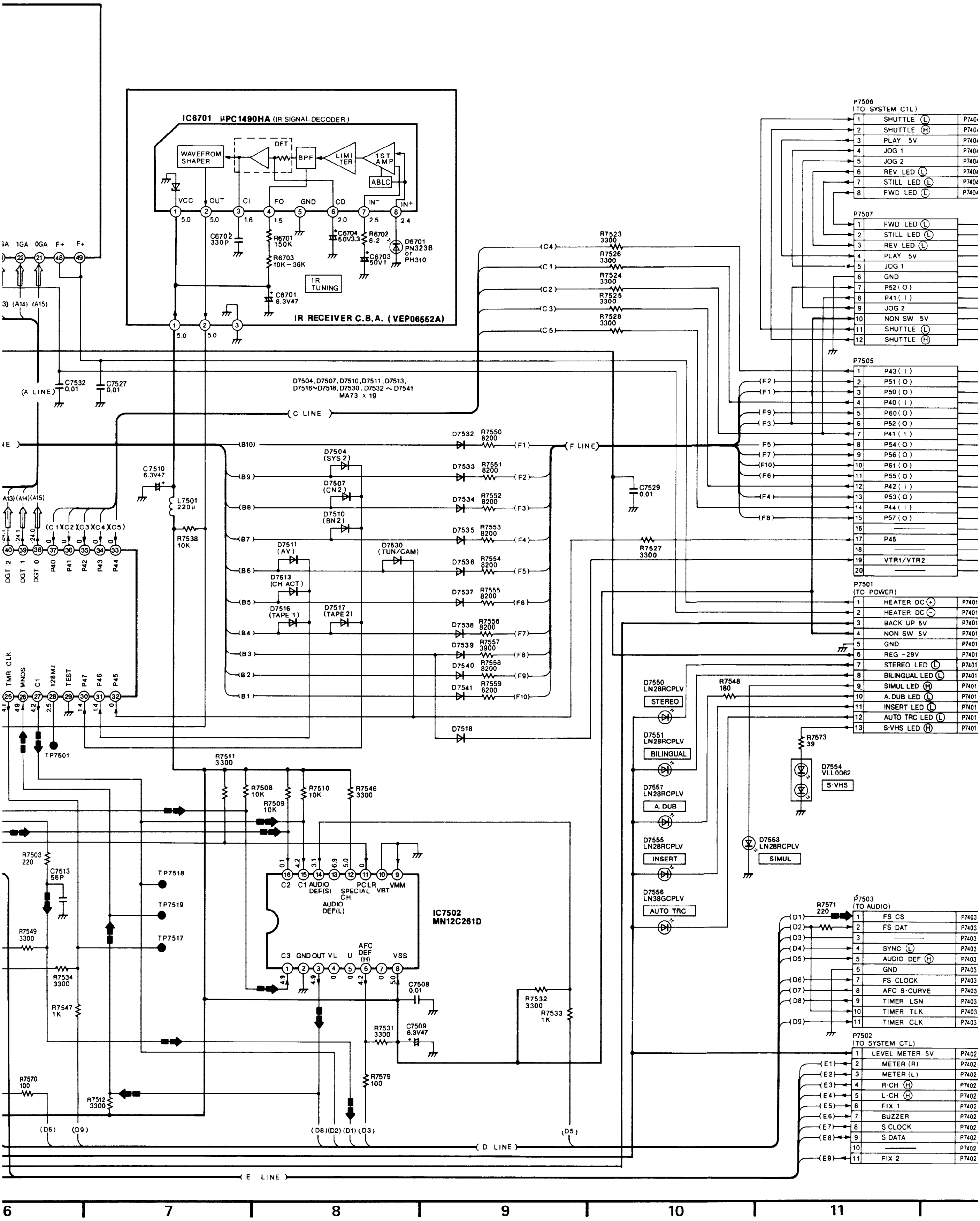
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

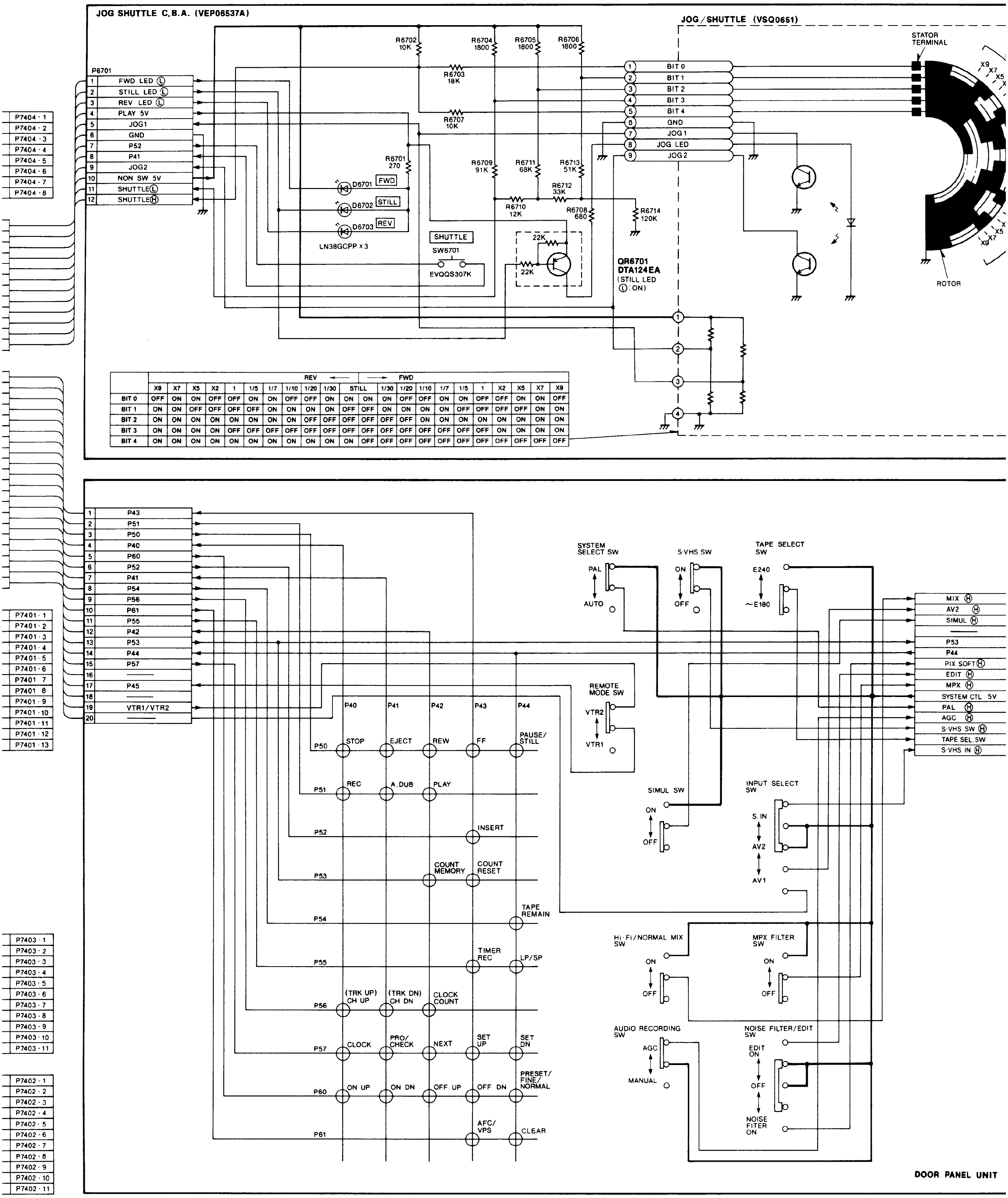
3-29. TIMER & VR SCHEMATIC DIAGRAM

SEGMENT CO


DP7501 VSL0144A,B
1GB
2GB
0GA
1GA
VTR
VPS
×2
OTR
REC
2GA
3GA
4GA
5GA
AV
EW
Po
M
D
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
6GA
7GA
8GA
+10 7 4 2 0 2 4 7 10 20 30 40 -∞
L
dB
R
S2B
S3B
R7505 100K
R7506 820
R7507 1500
D7501 MA3068
C7511 50V10
RX7501 EXBF11E104J (100K)
RX7502 EXBF8E104J (100K)
IC7505 BA6810S
D7560 MA73
R7540 22K
C7522 0.022
C7520 6.3V33
C7521 0.1
R7541 1K
C7523 25V4.7
R7542 47K
R7543 47K
C7524 25V4.7
R7544 47K
OSC CR
VCC
1CH AC IN
DET 1
2CH AC IN
DET2
1CH DC IN
2CH DC IN
MUTE SW
AC DC SW
FIX1
FIX2
GND
DE2
DE1
QR7510 MRN2403 (SWITCHING)
QR7511 MRN2403 (SWITCHING)
QR7505 MRN2402 (METER OFF Ⓗ: OFF)
R7504 100
IC7501 MN187125VHP
VPP
SEG 0 … SEG 15
METER OFF (H)
DGT 8 … DGT 1
VDD
OSC2
OSC1
VSS
X1
X0
S-CURVE
C2
CLK
IR
POW FAIL
DAC
SYNC (L)
BUZZER
C3
RESET(L)
SYS S-CLK
SYS S-DATA
SYS S-DATA
TMR CLK
MNDS
R7501 1200
C7502 8P
X7501 VSX0140 A,B
C7501 30P
TIMER CLOCK
C7503 22P
R7502 220K
X7502 VSX0094 A,C,E
C7504 22P
QR7501 MRN1404 (RESET Ⓛ:OFF)
R7572 100
R7530 3300
C7512 0.1
IC7503 MN1280L,K (RESET)
IC7504 MN1280S (RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
V1
V2
GND
C7525 820P
R7549 3300
R7570 100
R7529 3300
C7505 6.3V220
C7506 0.1
C7507 50V0.22
C7531 0.1
(B LINE)
(E4)(E3)
(E2)(E1)
(E5)(E9)
(D4)
(E6)
(E7)
(E8)
(D7)
G
F
E
D
C
B
A
1
2
3
4
5
6

CONTROL SIGNAL ⇦ GRID CONTROL SIGNAL ⬅ TUNE CONTROL SIGNA

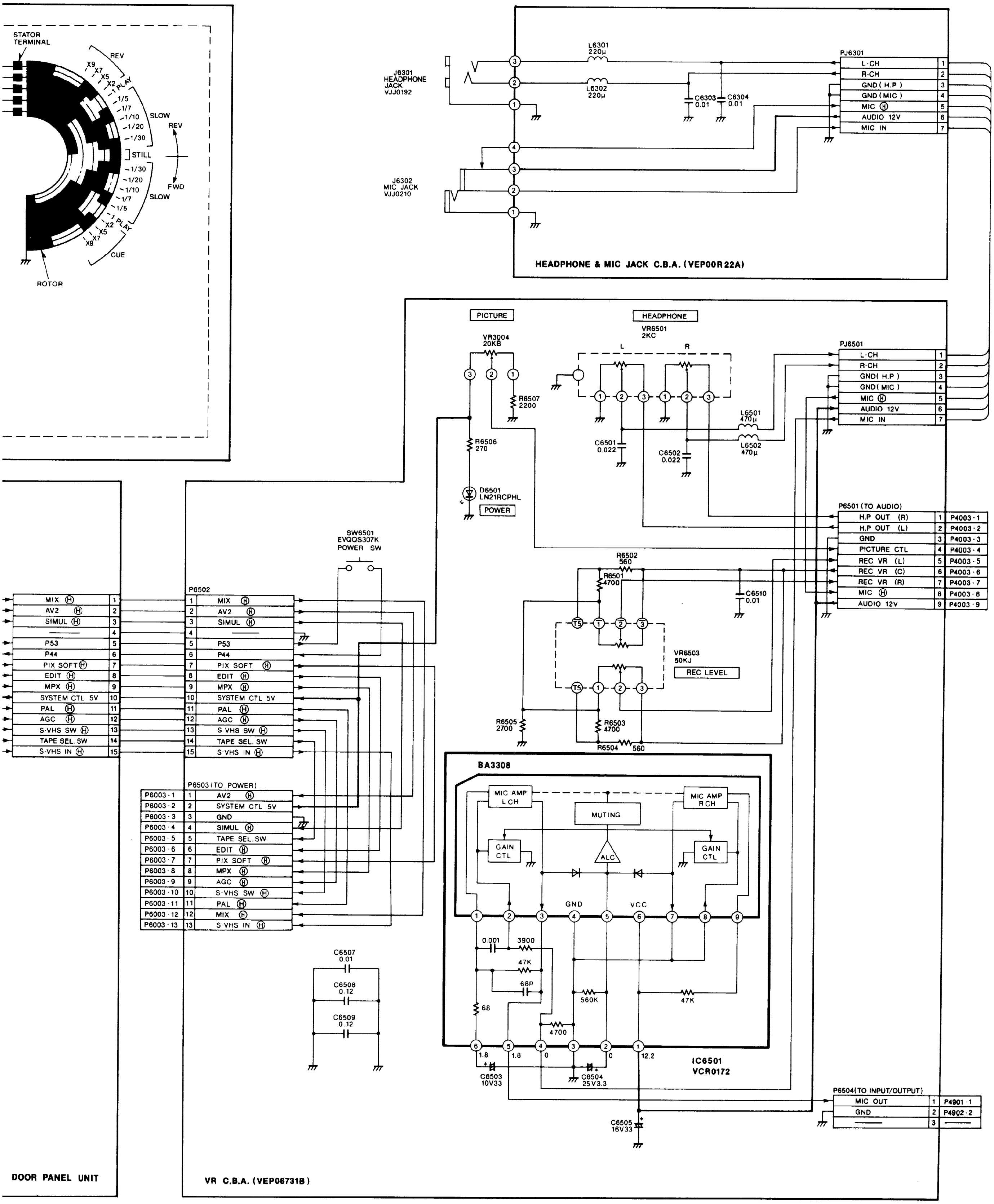

IC6701 µPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMI TER
1ST AMP
ABLC
VCC
OUT
CI
FO
GND
CD
IN⁻
IN⁺
C6702 330P
R6701 150K
R6703 10K−36K
C6704 50V3.3
R6702 8.2
D6701 PN323B or PH310
C6703 50V1
C6701 6.3V47
IR TUNING
IR RECEIVER C.B.A. (VEP06552A)
R7523 3300
R7526 3300
R7524 3300
R7525 3300
R7528 3300
C7532 0.01
C7527 0.01
(A LINE)
(C LINE)
(F LINE)
(D LINE)
(E LINE)
D7504, D7507, D7510, D7511, D7513, D7516~D7518, D7530, D7532 ~ D7541 MA73 × 19
D7504 (SYS 2)
D7507 (CN 2)
D7510 (BN 2)
D7511 (AV)
D7513 (CH ACT)
D7516 (TAPE 1)
D7517 (TAPE 2)
D7530 (TUN/CAM)
D7532 R7550 8200
D7533 R7551 8200
D7534 R7552 8200
D7535 R7553 8200
D7536 R7554 8200
D7537 R7555 8200
D7538 R7556 8200
D7539 R7557 3900
D7540 R7558 8200
D7541 R7559 8200
D7518
C7510 6.3V47
L7501 220µ
R7538 10K
C7529 0.01
R7527 3300
DGT 2
DGT 1
DGT 0
P40
P41
P42
P43
P44
TMR CLK
MNDS
C1
128Mz
TEST
P47
P46
P45
TP7501
R7511 3300
R7508 10K
R7509 10K
R7510 10K
R7546 3300
IC7502 MN12C261D
C2
C1
AUDIO DEF(S)
SPECIAL CH AUDIO DEF(L)
PCLR
VBT
VMM
C3
GND
OUT
VL
U
AFC DEF (H)
VSS
C7508 0.01
R7531 3300
C7509 6.3V47
R7579 100
R7532 3300
R7533 1K
R7503 220
C7513 56P
R7549 3300
R7534 3300
R7547 1K
R7570 100
R7512 3300
TP7518
TP7519
TP7517
D7550 LN28RCPLV STEREO
D7551 LN28RCPLV BILINGUAL
D7557 LN28RCPLV A.DUB
D7555 LN28RCPLV INSERT
D7556 LN38GCPLV AUTO TRC
D7553 LN28RCPLV SIMUL
R7548 180
R7573 39
D7554 VLL0062 S-VHS
R7571 220
P7506 (TO SYSTEM CTL)
1 SHUTTLE Ⓛ
2 SHUTTLE Ⓗ
3 PLAY 5V
4 JOG 1
5 JOG 2
6 REV LED Ⓛ
7 STILL LED Ⓛ
8 FWD LED Ⓛ
P7507
1 FWD LED Ⓛ
2 STILL LED Ⓛ
3 REV LED Ⓛ
4 PLAY 5V
5 JOG 1
6 GND
7 P52 (O)
8 P41 (I)
9 JOG 2
10 NON SW 5V
11 SHUTTLE Ⓛ
12 SHUTTLE Ⓗ
P7505
1 P43 (I)
2 P51 (O)
3 P50 (O)
4 P40 (I)
5 P60 (O)
6 P52 (O)
7 P41 (I)
8 P54 (O)
9 P56 (O)
10 P61 (O)
11 P55 (O)
12 P42 (I)
13 P53 (O)
14 P44 (I)
15 P57 (O)
16 ———
17 P45
18 ———
19 VTR1/VTR2
20 ———
P7501 (TO POWER)
1 HEATER DC ⊕ P7401
2 HEATER DC ⊖ P7401
3 BACK UP 5V P7401
4 NON SW 5V P7401
5 GND P7401
6 REG −29V P7401
7 STEREO LED Ⓛ P7401
8 BILINGUAL LED Ⓛ P7401
9 SIMUL LED Ⓗ P7401
10 A.DUB LED Ⓛ P7401
11 INSERT LED Ⓛ P7401
12 AUTO TRC LED Ⓛ P7401
13 S-VHS LED Ⓗ P7401
P7503 (TO AUDIO)
1 FS CS P7403
2 FS DAT P7403
3 ——— P7403
4 SYNC Ⓛ P7403
5 AUDIO DEF Ⓗ P7403
6 GND P7403
7 FS CLOCK P7403
8 AFC S-CURVE P7403
9 TIMER LSN P7403
10 TIMER TLK P7403
11 TIMER CLK P7403
P7502 (TO SYSTEM CTL)
1 LEVEL METER 5V P7402
2 METER (R) P7402
3 METER (L) P7402
4 R-CH Ⓗ P7402
5 L-CH Ⓗ P7402
6 FIX 1 P7402
7 BUZZER P7402
8 S.CLOCK P7402
9 S.DATA P7402
10 ——— P7402
11 FIX 2 P7402
6
7
8
9
10
11


JOG SHUTTLE C.B.A. (VEP06537A)
JOG/SHUTTLE (VSQ0651)
P6701
FWD LED Ⓛ
STILL LED Ⓛ
REV LED Ⓛ
PLAY 5V
JOG1
GND
P52
P41
JOG2
NON SW 5V
SHUTTLEⓁ
SHUTTLEⒽ
P7404 · 1
P7404 · 2
P7404 · 3
P7404 · 4
P7404 · 5
P7404 · 6
P7404 · 7
P7404 · 8
R6702 10K
R6704 1800
R6705 1800
R6706 1800
R6703 18K
R6707 10K
R6701 270
R6709 91K
R6711 68K
R6713 51K
R6712 33K
R6710 12K
R6708 680
R6714 120K
D6701
D6702
D6703
FWD
STILL
REV
LN38GCPP x 3
SHUTTLE
SW6701
EVQQS307K
22K
22K
QR6701
DTA124EA
(STILL LED Ⓛ: ON)
BIT 0
BIT 1
BIT 2
BIT 3
BIT 4
GND
JOG 1
JOG LED
JOG 2
STATOR TERMINAL
X9
X7
X5
ROTOR
P43
P51
P50
P40
P60
P52
P41
P54
P56
P61
P55
P42
P53
P44
P57
P45
VTR1/VTR2
P7401 · 1
P7401 · 2
P7401 · 3
P7401 · 4
P7401 · 5
P7401 · 6
P7401 · 7
P7401 · 8
P7401 · 9
P7401 · 10
P7401 · 11
P7401 · 12
P7401 · 13
P7403 · 1
P7403 · 2
P7403 · 3
P7403 · 4
P7403 · 5
P7403 · 6
P7403 · 7
P7403 · 8
P7403 · 9
P7403 · 10
P7403 · 11
P7402 · 1
P7402 · 2
P7402 · 3
P7402 · 4
P7402 · 5
P7402 · 6
P7402 · 7
P7402 · 8
P7402 · 9
P7402 · 10
P7402 · 11
STOP
EJECT
REW
FF
PAUSE/ STILL
REC
A.DUB
PLAY
INSERT
COUNT MEMORY
COUNT RESET
TAPE REMAIN
TIMER REC
LP/SP
(TRK UP) CH UP
(TRK DN) CH DN
CLOCK COUNT
CLOCK
PRO/ CHECK
NEXT
SET UP
SET DN
ON UP
ON DN
OFF UP
OFF DN
PRESET/ FINE/ NORMAL
AFC/ VPS
CLEAR
SYSTEM SELECT SW
PAL
AUTO
S-VHS SW
ON
OFF
TAPE SELECT SW
E240
~E180
REMOTE MODE SW
VTR2
VTR1
SIMUL SW
INPUT SELECT SW
S.IN
AV2
AV1
Hi-Fi/NORMAL MIX SW
MPX FILTER SW
AUDIO RECORDING SW
AGC
MANUAL
NOISE FILTER/EDIT SW
EDIT ON
NOISE FITER ON
MIX Ⓗ
AV2 Ⓗ
SIMUL Ⓗ
PIX SOFT Ⓗ
EDIT Ⓗ
MPX Ⓗ
SYSTEM CTL 5V
PAL Ⓗ
AGC Ⓗ
S-VHS SW Ⓗ
TAPE SEL.SW
S-VHS IN Ⓗ
DOOR PANEL UNIT

	REV ←											→ FWD										
	X9	X7	X5	X2	1	1/5	1/7	1/10	1/20	1/30	STILL		1/30	1/20	1/10	1/7	1/5	1	X2	X5	X7	X9
BIT 0	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF
BIT 1	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
BIT 2	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
BIT 3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON
BIT 4	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGI

12 13 14 15 16 17



STATOR TERMINAL
ROTOR
REV
X9
X7
X5
X2
PLAY
1/5
1/7
1/10
1/20
1/30
SLOW
STILL
FWD
CUE
J6301 HEADPHONE JACK VJJ0192
J6302 MIC JACK VJJ0210
L6301 220μ
L6302 220μ
C6303 0.01
C6304 0.01
PJ6301
L·CH
R·CH
GND (H.P)
GND (MIC)
MIC Ⓗ
AUDIO 12V
MIC IN
HEADPHONE & MIC JACK C.B.A. (VEP00R22A)
PICTURE
HEADPHONE
VR3004 20KB
VR6501 2KC
R6507 2200
R6506 270
D6501 LN21RCPHL
POWER
C6501 0.022
C6502 0.022
L6501 470μ
L6502 470μ
PJ6501
P6501 (TO AUDIO)
H.P OUT (R)
H.P OUT (L)
GND
PICTURE CTL
REC VR (L)
REC VR (C)
REC VR (R)
MIC Ⓗ
AUDIO 12V
P4003·1
P4003·2
P4003·3
P4003·4
P4003·5
P4003·6
P4003·7
P4003·8
P4003·9
SW6501 EVQQS307K POWER SW
R6502 560
R6501 4700
C6510 0.01
VR6503 50KJ
REC LEVEL
R6505 2700
R6503 4700
R6504 560
P6502
MIX Ⓗ
AV2 Ⓗ
SIMUL Ⓗ
P53
P44
PIX SOFT Ⓗ
EDIT Ⓗ
MPX Ⓗ
SYSTEM CTL 5V
PAL Ⓗ
AGC Ⓗ
S·VHS SW Ⓗ
TAPE SEL. SW
S·VHS IN Ⓗ
P6503 (TO POWER)
P6003·1
P6003·2
P6003·3
P6003·4
P6003·5
P6003·6
P6003·7
P6003·8
P6003·9
P6003·10
P6003·11
P6003·12
P6003·13
GND
BA3308
MIC AMP L CH
MIC AMP R CH
MUTING
GAIN CTL
ALC
VCC
C6507 0.01
C6508 0.12
C6509 0.12
0.001
3900
47K
68P
68
4700
560K
1.8
12.2
C6503 10V33
C6504 25V3.3
C6505 16V33
IC6501 VCR0172
P6504 (TO INPUT/OUTPUT)
MIC OUT
P4901·1
P4902·2
DOOR PANEL UNIT
VR C.B.A. (VEP06731B)

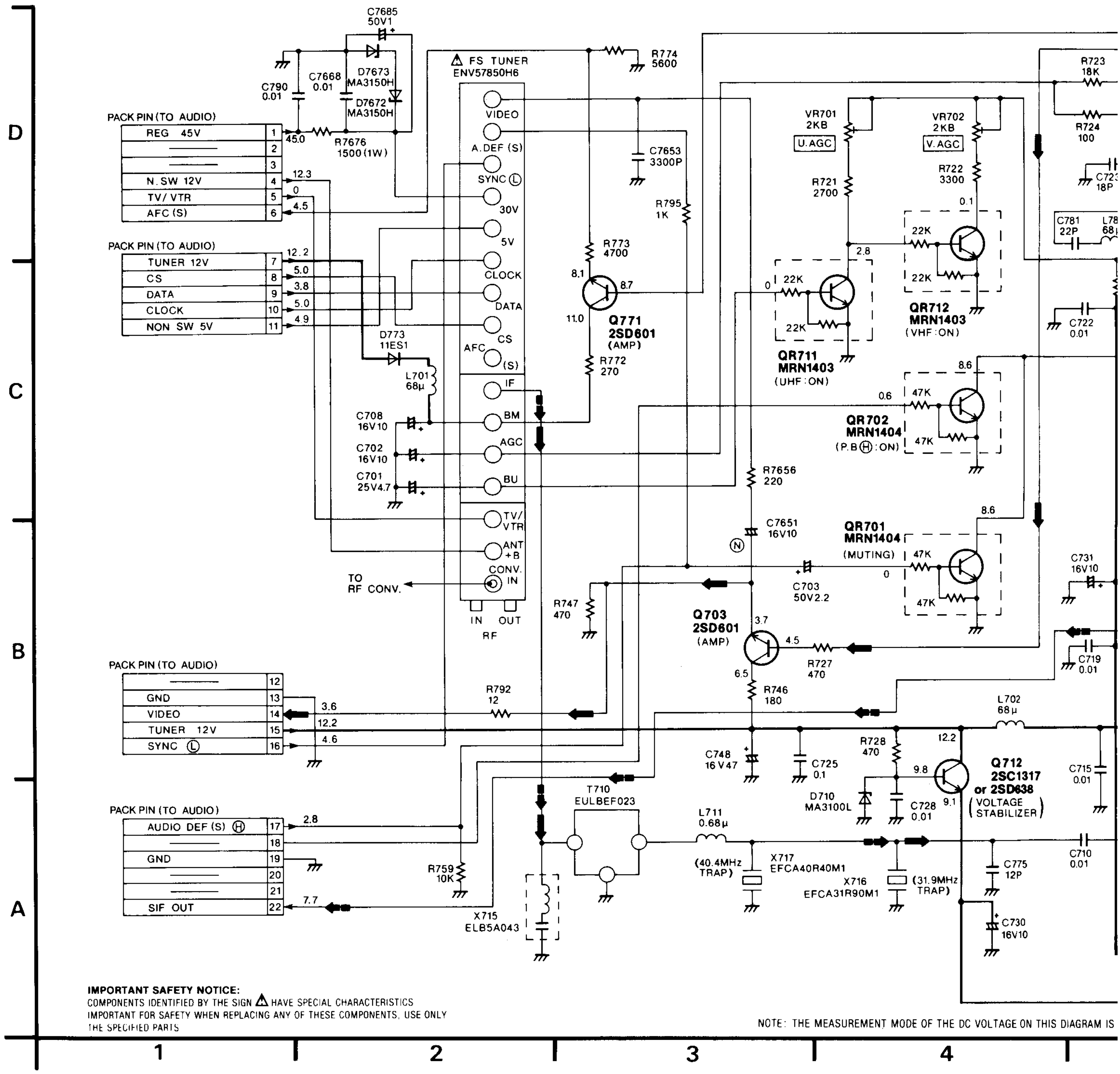
OLTAGE ON THIS DIAGRAM IS STOP MODE. (S-VHS: SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

17 18 19 20 21 22

3-30. TV DEMODULATOR PACK SCHEMATIC DIAGRAM

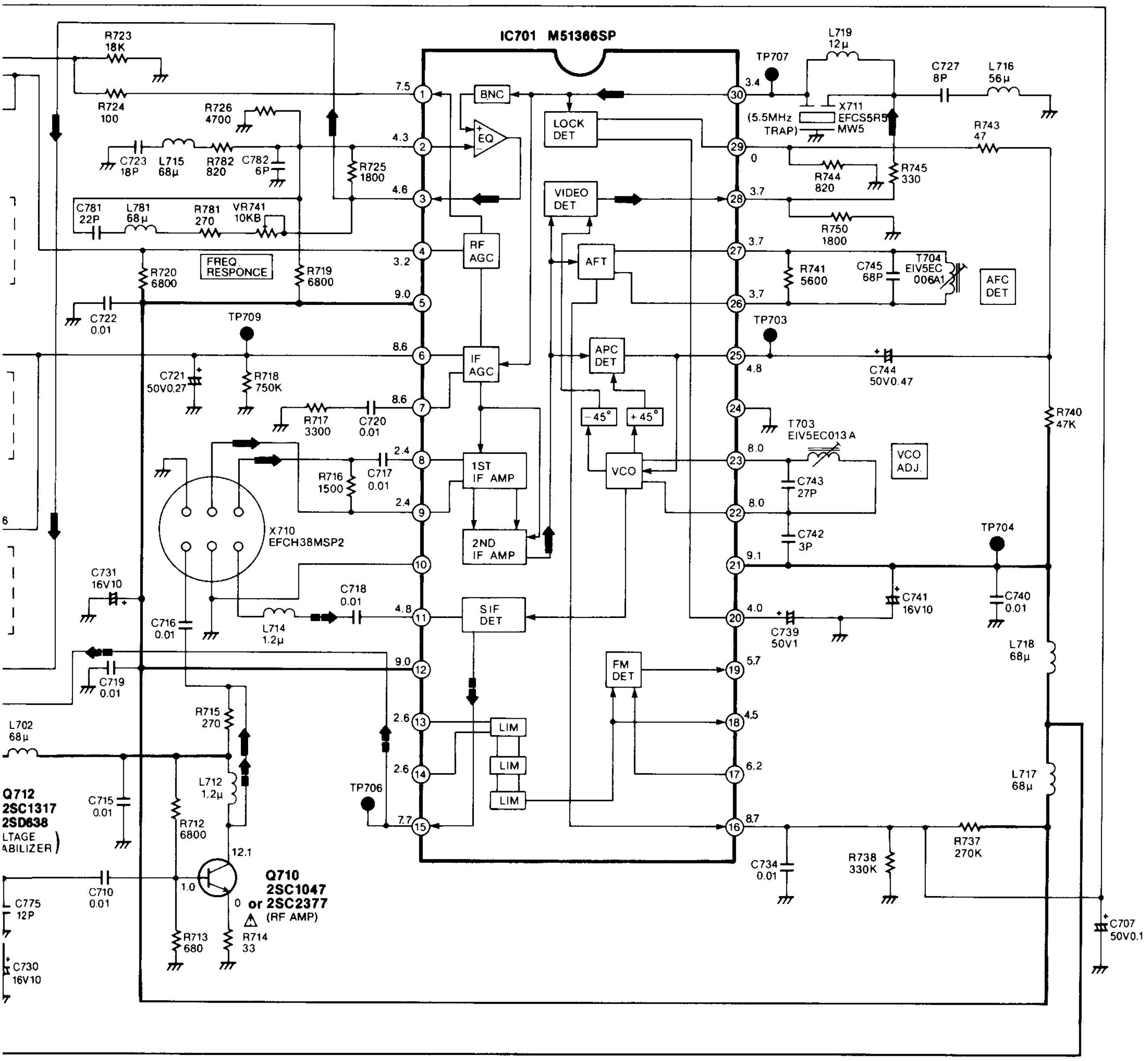
◀ VIDEO SIGNAL PATH ◀■ AUDIO SIGNAL PATH


D
C
B
A
1
2
3
4
PACK PIN (TO AUDIO)
REG 45V
N.SW 12V
TV/VTR
AFC (S)
TUNER 12V
CS
DATA
CLOCK
NON SW 5V
GND
VIDEO
TUNER 12V
SYNC Ⓛ
AUDIO DEF (S) Ⓗ
SIF OUT
C7685 50V1
D7673 MA3150H
D7672 MA3150H
C7668 0.01
C790 0.01
R7676 1500 (1W)
⚠ FS TUNER ENV57850H6
VIDEO
A.DEF (S)
SYNC Ⓛ
30V
5V
CLOCK
DATA
CS
AFC (S)
IF
BM
AGC
BU
TV/VTR
ANT +B
CONV. IN
IN OUT RF
TO RF CONV.
D773 11ES1
L701 68μ
C708 16V10
C702 16V10
C701 25V4.7
R774 5600
C7653 3300P
R795 1K
R773 4700
Q771 2SD601 (AMP)
R772 270
R747 470
R792 12
R759 10K
VR701 2KB
U.AGC
VR702 2KB
V.AGC
R721 2700
R722 3300
QR711 MRN1403 (UHF:ON)
QR712 MRN1403 (VHF:ON)
QR702 MRN1404 (P.B Ⓗ:ON)
QR701 MRN1404 (MUTING)
22K
47K
R7656 220
C7651 16V10
Ⓝ
C703 50V2.2
Q703 2SD601 (AMP)
R727 470
R746 180
C748 16V47
C725 0.1
R728 470
D710 MA3100L
C728 0.01
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
T710 EULBEF023
L711 0.68μ
(40.4MHz TRAP)
X717 EFCA40R40M1
X716 EFCA31R90M1
(31.9MHz TRAP)
X715 ELB5A043
L702 68μ
R723 18K
R724 100
C781 22P
C722 0.01
C731 16V10
C719 0.01
C715 0.01
C775 12P
C710 0.01
C730 16V10
45.0
12.3
0
4.5
12.2
5.0
3.8
4.9
8.1
8.7
11.0
2.8
0.1
8.6
0.6
3.7
6.5
3.6
4.6
7.7
9.8
9.1

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS
IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY
THE SPECIFIED PARTS

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS

PATH

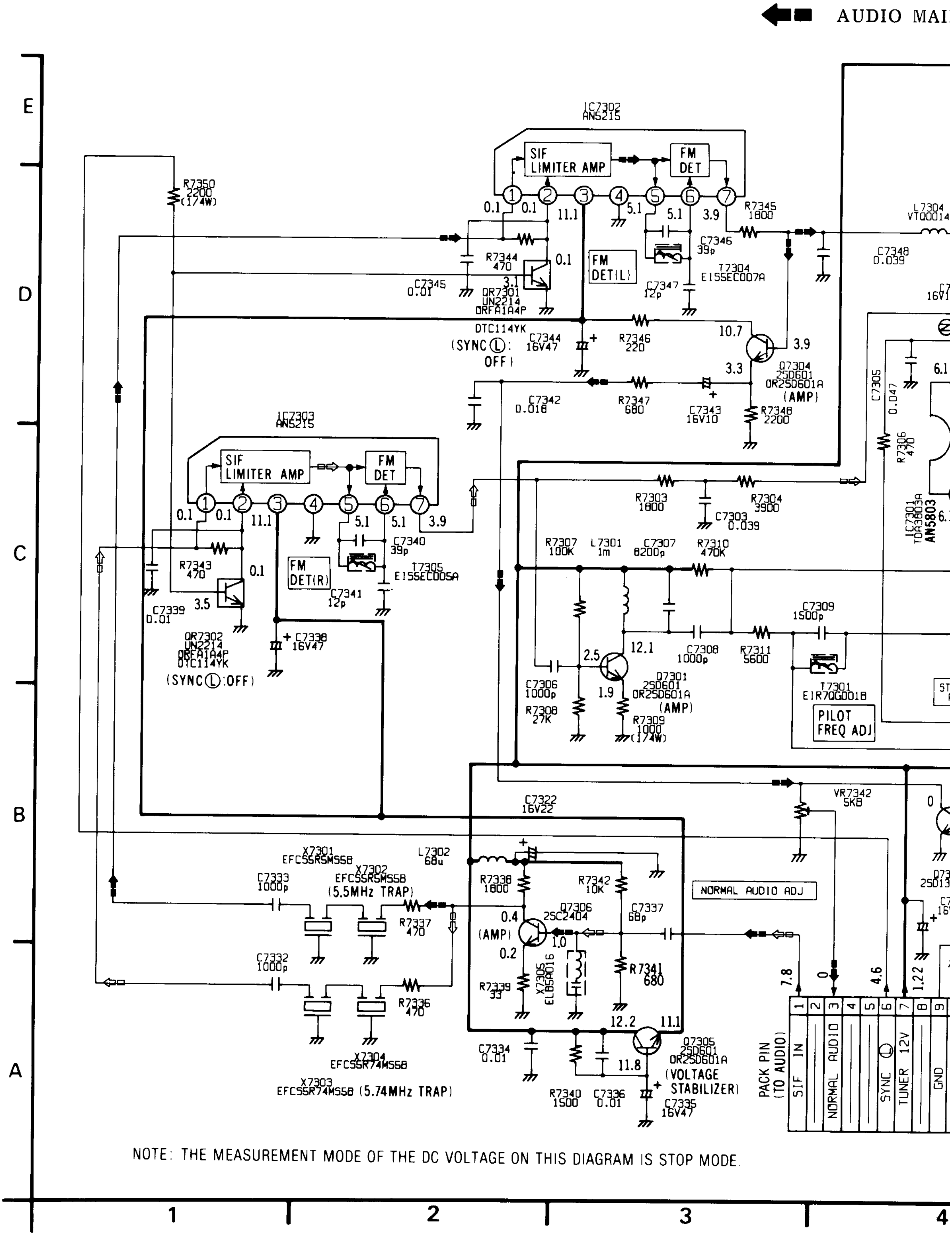

IC701 M51366SP
R723 18K
R724 100
R726 4700
C723 18P
L715 68μ
R782 820
C782 6P
R725 1800
C781 22P
L781 68μ
R781 270
VR741 10KB
FREQ. RESPONCE
R720 6800
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
R716 1500
C717 0.01
X710 EFCH38MSP2
C731 16V10
C716 0.01
L714 1.2μ
C718 0.01
C719 0.01
L702 68μ
R715 270
L712 1.2μ
Q712 2SC1317 2SD638
LTAGE ABILIZER)
C715 0.01
R712 6800
C710 0.01
C775 12P
C730 16V10
12.1
1.0
0
Q710 2SC1047 or 2SC2377
(RF AMP)
R713 680
R714 33
TP706
7.5
4.3
4.6
3.2
9.0
8.6
8.6
2.4
2.4
4.8
9.0
2.6
2.6
7.7
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
IF AGC
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
LIM
LIM
TP707
L719 12μ
C727 8P
L716 56μ
3.4
(5.5MHz TRAP)
X711 EFCS5R5 MW5
R743 47
0
R744 820
R745 330
3.7
R750 1800
3.7
R741 5600
C745 68P
T704 EIV5EC 006A1
AFC DET
3.7
TP703
4.8
C744 50V0.47
R740 47K
T703 EIV5EC013A
8.0
C743 27P
VCO ADJ.
8.0
C742 3P
TP704
9.1
C741 16V10
C740 0.01
4.0
C739 50V1
L718 68μ
5.7
4.5
L717 68μ
6.2
8.7
R737 270K
C734 0.01
R738 330K
C707 50V0.1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

.TAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

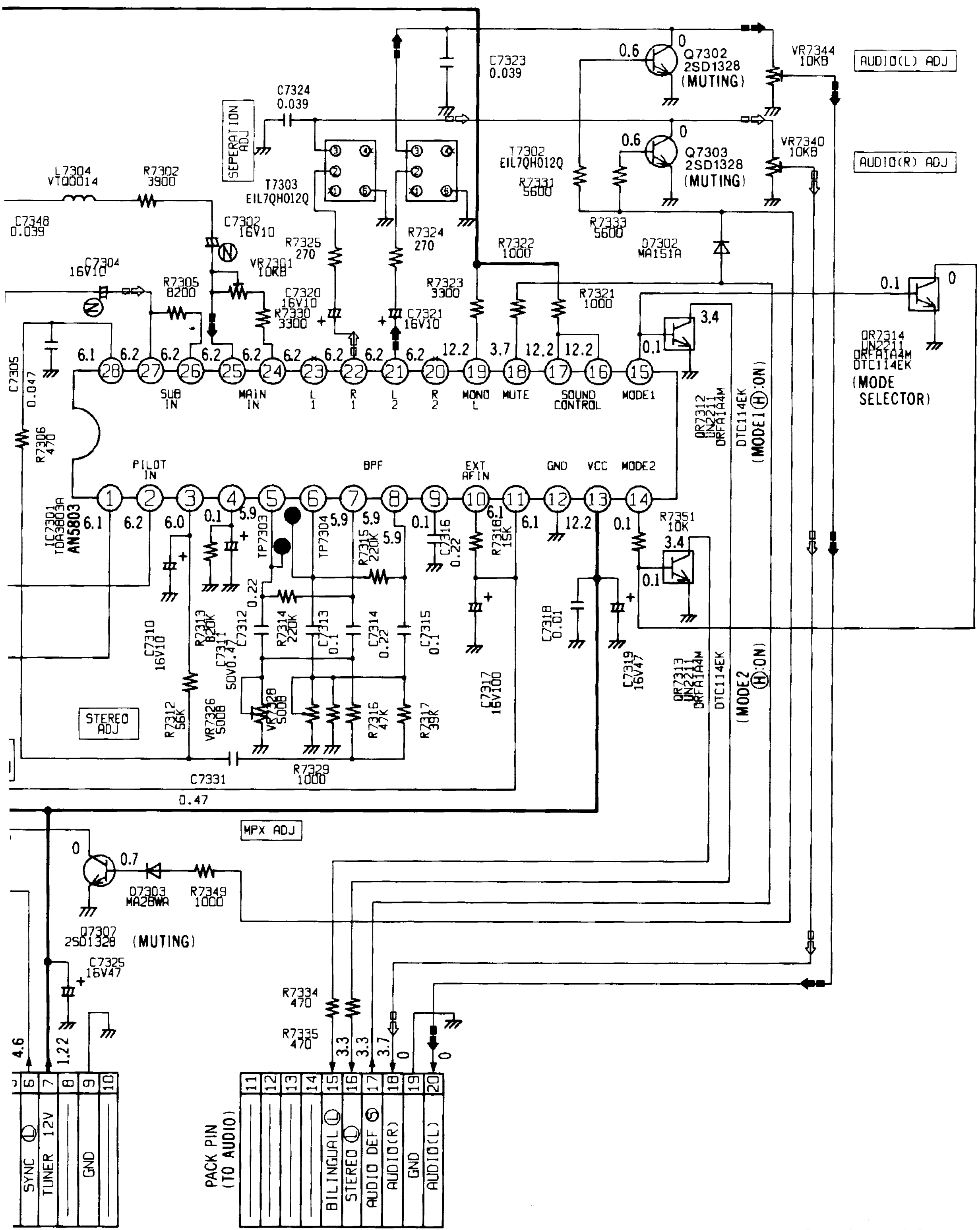
5 6 7 8

3-32. DECODER PACK SCHEMATIC DIAGRAM


AUDIO MAI
E
D
C
B
A
1
2
3
4
IC7302
AN5215
SIF
LIMITER AMP
FM
DET
R7350
2200
(1/4W)
0.1
0.1
11.1
5.1
5.1
3.9
R7345
1800
L7304
VTQ0014
R7344
470
0.1
3.1
FM
DET(L)
C7346
39p
T7304
E155EC007A
C7348
0.039
C7345
0.01
QR7301
UN2214
ORFA1A4P
DTC114YK
(SYNC Ⓛ: OFF)
C7347
12p
C7344
16V47
R7346
220
10.7
3.9
3.3
Q7304
2SD601
OR2SD601A
(AMP)
C7342
0.018
R7347
680
C7343
16V10
R7348
2200
C7305
0.047
6.1
R7306
470
IC7301
TDA3803A
AN5803
IC7303
AN5215
SIF
LIMITER AMP
FM
DET
0.1
0.1
11.1
5.1
5.1
3.9
R7343
470
0.1
3.5
C7340
39p
T7305
E155EC005A
FM
DET(R)
C7341
12p
C7339
0.01
QR7302
UN2214
ORFA1A4P
DTC114YK
(SYNC Ⓛ:OFF)
C7338
16V47
R7303
1800
R7304
3900
C7303
0.039
R7307
100K
L7301
1m
C7307
8200p
R7310
470K
C7309
1500p
12.1
2.5
C7308
1000p
R7311
5600
1.9
C7306
1000p
R7308
27K
Q7301
2SD601
OR2SD601A
(AMP)
R7309
1000
(1/4W)
T7301
EIR7QG001B
PILOT
FREQ ADJ
VR7342
5K8
0
C7322
16V22
X7301
EFCS5R5MS5B
X7302
EFCS5R5MS5B
(5.5MHz TRAP)
L7302
68u
C7333
1000p
R7338
1800
R7342
10K
NORMAL AUDIO ADJ
R7337
470
Q7306
2SC2404
(AMP)
0.4
1.0
C7337
68p
0.2
C7332
1000p
R7336
470
R7339
33
X7305
ELBSA016
R7341
680
7.8
0
4.6
1.22
12.2
11.1
C7334
0.01
11.8
Q7305
2SD601
OR2SD601A
(VOLTAGE
STABILIZER)
X7304
EFCS5R74MS5B
X7303
EFCS5R74MS5B (5.74MHz TRAP)
R7340
1500
C7336
0.01
C7335
16V47
PACK PIN
(TO AUDIO)
1
2
3
4
5
6
7
8
9
SIF IN
NORMAL AUDIO
SYNC Ⓛ
TUNER 12V
GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

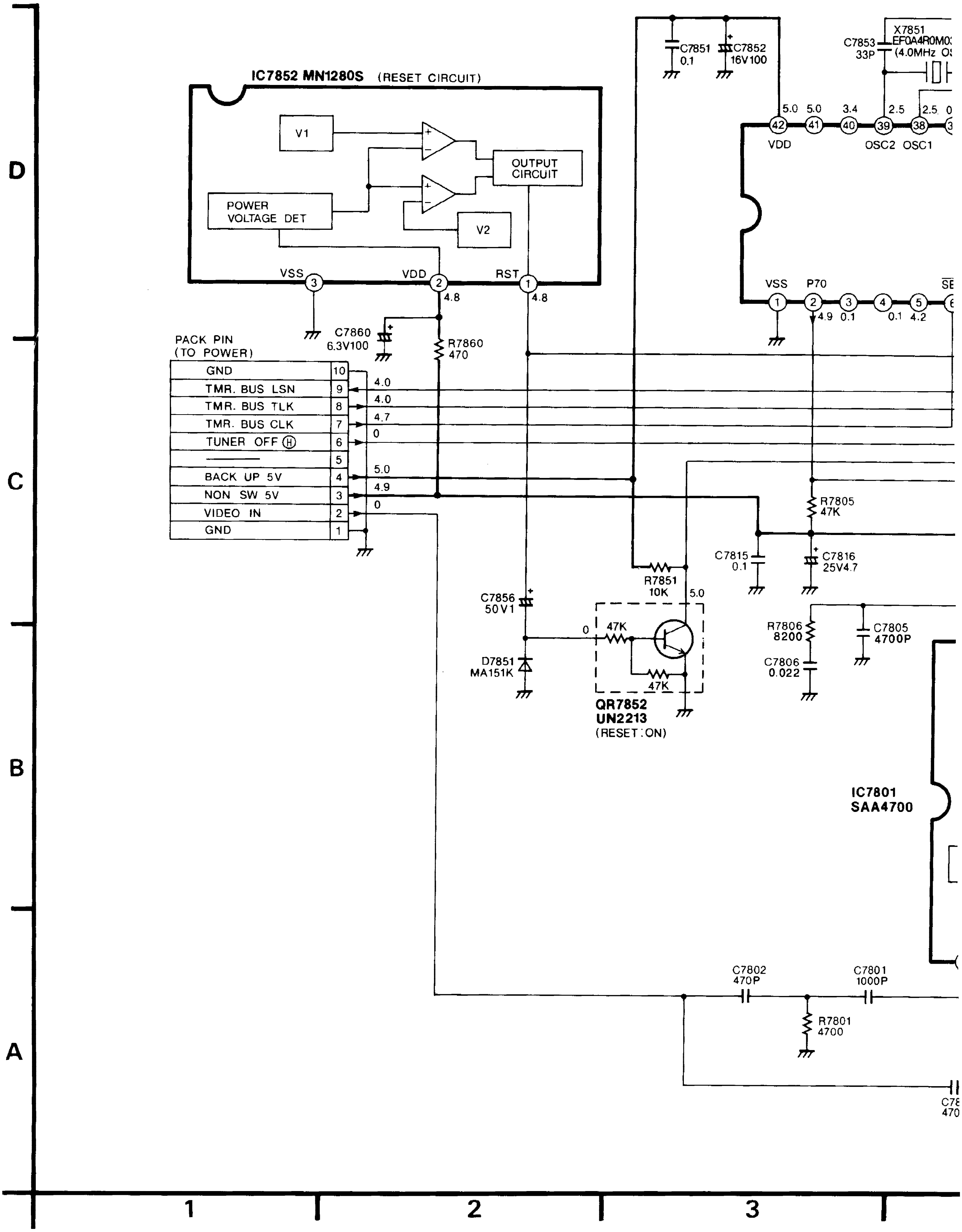
DIO MAIN SIGNAL PATH ⇦□ AUDIO SUB SIGNAL PATH

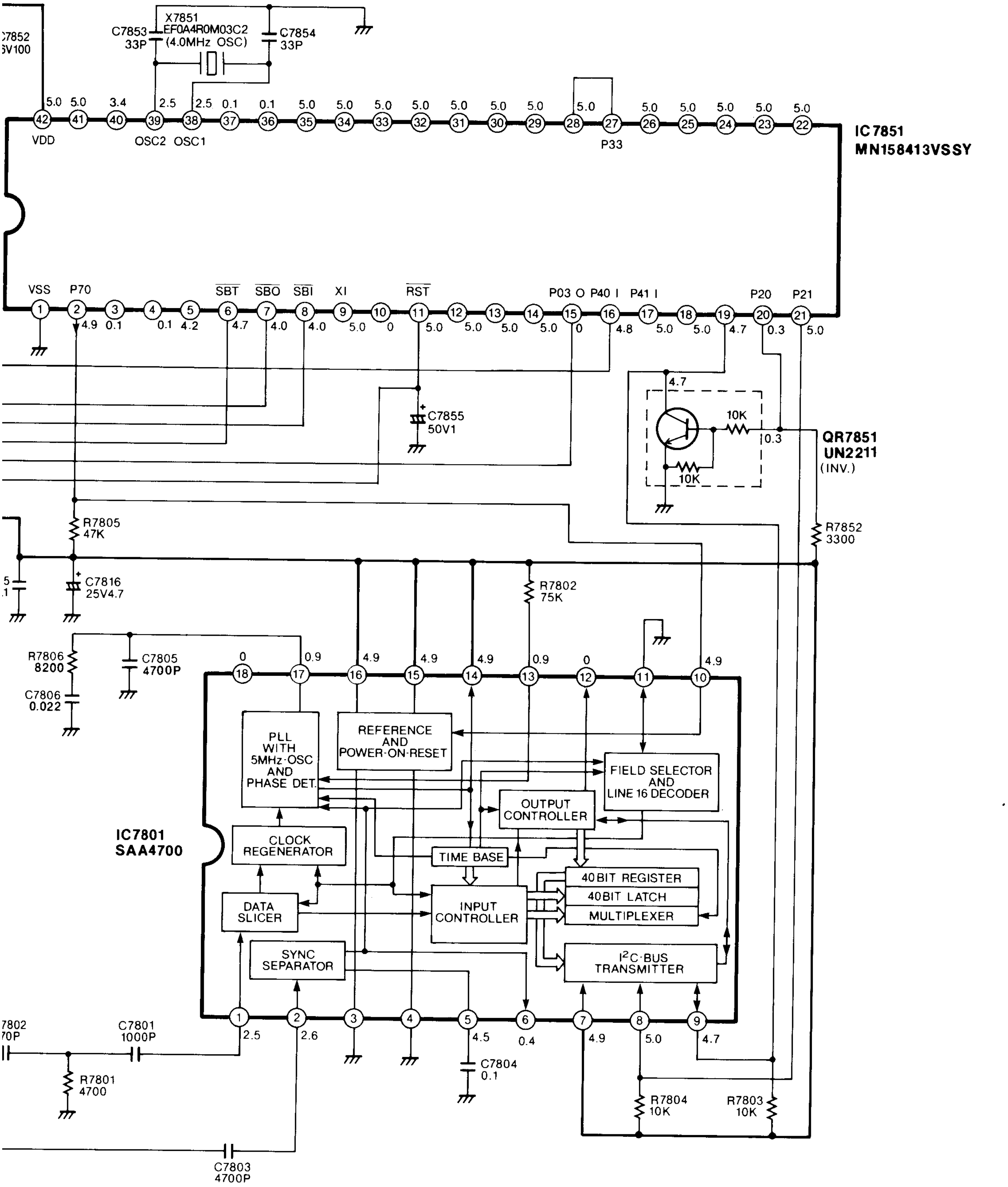

C7323
0.039
C7324
0.039
SEPERATION ADJ
T7303
EIL7QH012Q
T7302
EIL7QH012Q
Q7302
2SD1328
(MUTING)
Q7303
2SD1328
(MUTING)
VR7344
10KB
AUDIO(L) ADJ
VR7340
10KB
AUDIO(R) ADJ
L7304
VT00014
R7302
3900
C7348
0.039
C7302
16V10
C7304
16V10
R7305
8200
VR7301
10KB
R7325
270
R7324
270
R7331
5600
R7333
5600
R7322
1000
R7321
1000
R7323
3300
D7302
MA151A
C7320
16V10
R7330
3300
C7321
16V10
QR7314
UN2211
DRFA1A4M
DTC114EK
(MODE SELECTOR)
SUB IN
MAIN IN
L 1
R 1
L 2
R 2
MONO L
MUTE
SOUND CONTROL
MODE1
PILOT IN
BPF
EXT AF IN
GND
VCC
MODE2
QR7312
UN2211
DRFA1A4M
DTC114EK
(MODE1 H:ON)
QR7313
UN2211
DRFA1A4M
DTC114EK
(MODE2 H:ON)
IC7301
TDA3803A
AN5803
C7305
0.047
R7306
470
TP7303
TP7304
R7315
220K
C7316
0.22
R7318
15K
R7351
10K
C7310
16V10
R7313
820K
C7312
0.22
C7311
50V0.47
R7314
220K
C7313
0.1
C7314
0.22
C7315
0.1
C7318
0.01
C7317
16V100
C7319
16V47
STEREO ADJ
R7312
56K
VR7326
500B
VR7328
500B
R7316
47K
R7317
39K
C7331
0.47
R7329
1000
MPX ADJ
Q7307
2SD1328
(MUTING)
D7303
MA28WA
R7349
1000
C7325
16V47
R7334
470
R7335
470
SYNC L
TUNER 12V
GND
PACK PIN
(TO AUDIO)
BILINGUAL L
STEREO L
AUDIO DEF S
AUDIO(R)
GND
AUDIO(L)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

4 5 6 7

3-34. VPS PACK SCHEMATIC DIAGRAM

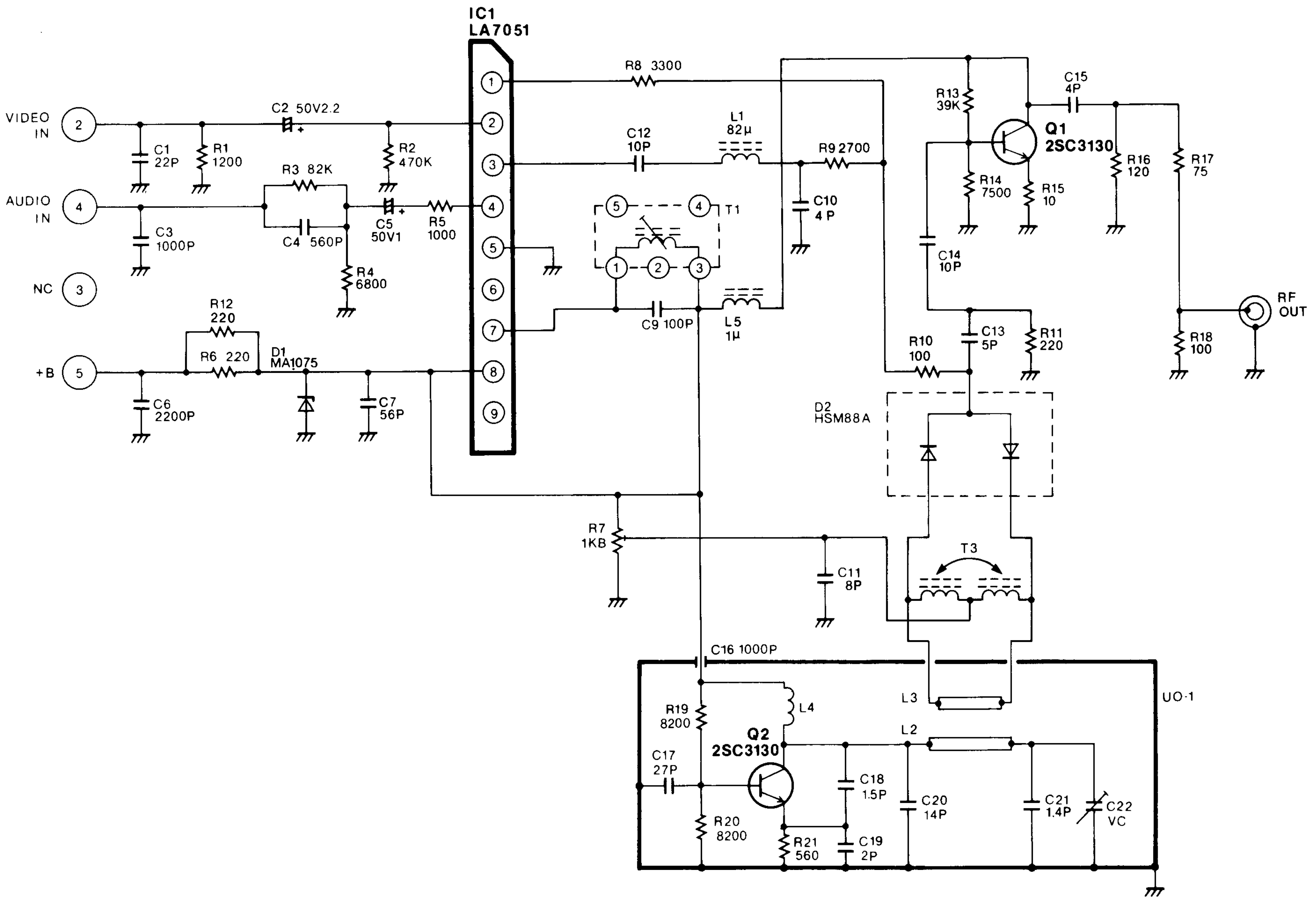

IC7852 MN1280S (RESET CIRCUIT)
V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
VSS
VDD
RST
4.8
4.8
C7860
6.3V100
R7860
470
PACK PIN
(TO POWER)
GND
TMR. BUS LSN
TMR. BUS TLK
TMR. BUS CLK
TUNER OFF Ⓗ
BACK UP 5V
NON SW 5V
VIDEO IN
GND
10
9
8
7
6
5
4
3
2
1
4.0
4.0
4.7
0
5.0
4.9
0
C7851
0.1
C7852
16V100
C7853
33P
X7851
EF0A4R0M0
(4.0MHz O
5.0
5.0
3.4
2.5
2.5
0
42
41
40
39
38
VDD
OSC2
OSC1
VSS
P70
1
2
3
4
5
4.9
0.1
0.1
4.2
R7805
47K
C7815
0.1
C7816
25V4.7
R7851
10K
5.0
C7856
50V1
D7851
MA151K
0
47K
47K
QR7852
UN2213
(RESET : ON)
R7806
8200
C7805
4700P
C7806
0.022
IC7801
SAA4700
C7802
470P
C7801
1000P
R7801
4700
C78
470
D
C
B
A
1
2
3


X7851
EF0A4R0M03C2
(4.0MHz OSC)
C7853
33P
C7854
33P
:7852
ЗV100
VDD
OSC2
OSC1
P33
IC7851
MN158413VSSY
VSS
P70
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
C7855
50V1
QR7851
UN2211
(INV.)
10K
10K
R7852
3300
R7805
47K
C7816
25V4.7
R7802
75K
R7806
8200
C7805
4700P
C7806
0.022
IC7801
SAA4700
PLL
WITH
5MHz OSC
AND
PHASE DET.
REFERENCE
AND
POWER-ON-RESET
FIELD SELECTOR
AND
LINE 16 DECODER
OUTPUT
CONTROLLER
CLOCK
REGENERATOR
TIME BASE
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
DATA
SLICER
INPUT
CONTROLLER
SYNC
SEPARATOR
I²C-BUS
TRANSMITTER
7802
70P
C7801
1000P
R7801
4700
C7804
0.1
R7804
10K
R7803
10K
C7803
4700P

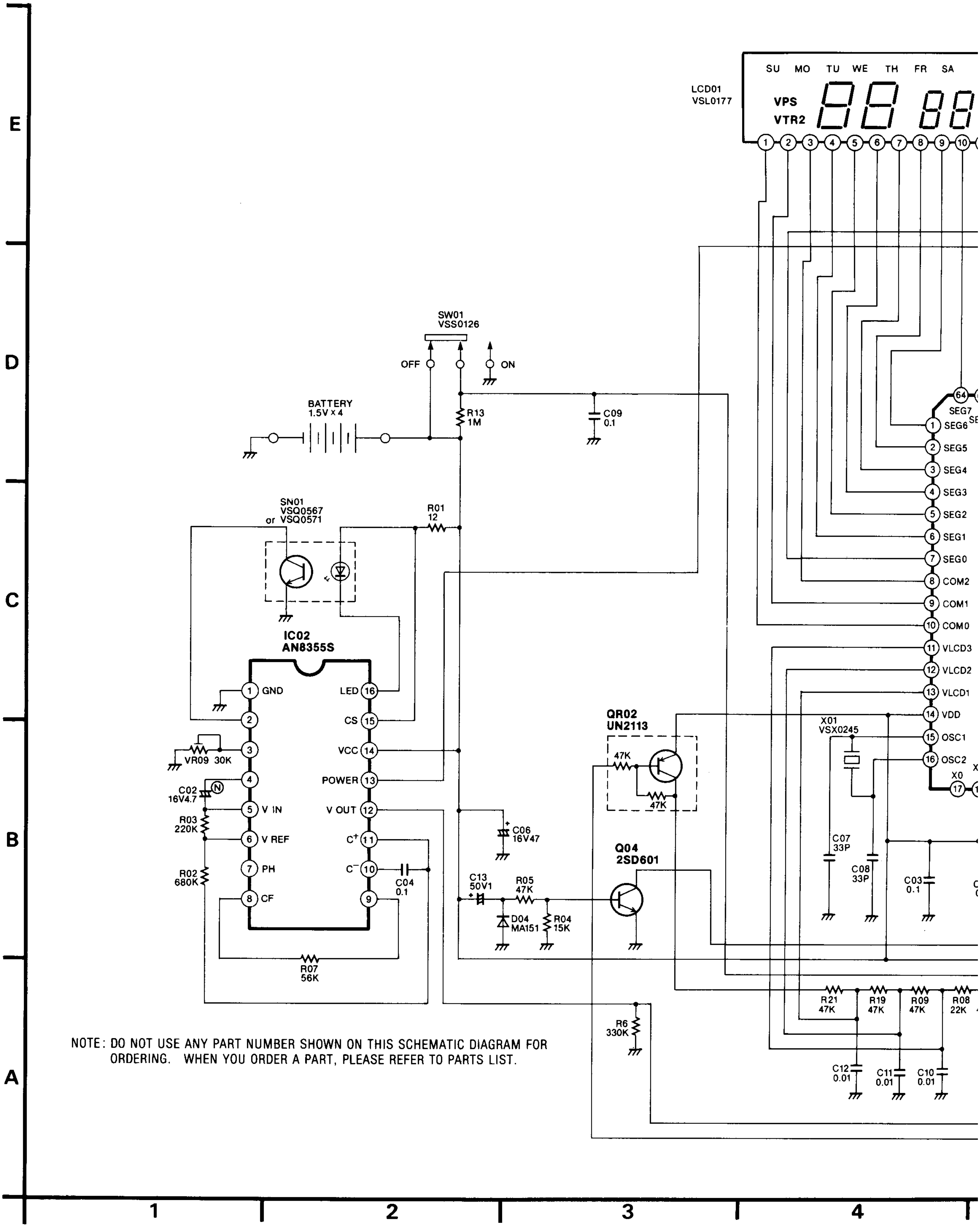
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

3-37. RF CONVERTER SCHEMATIC DIAGRAM (ENC17974)

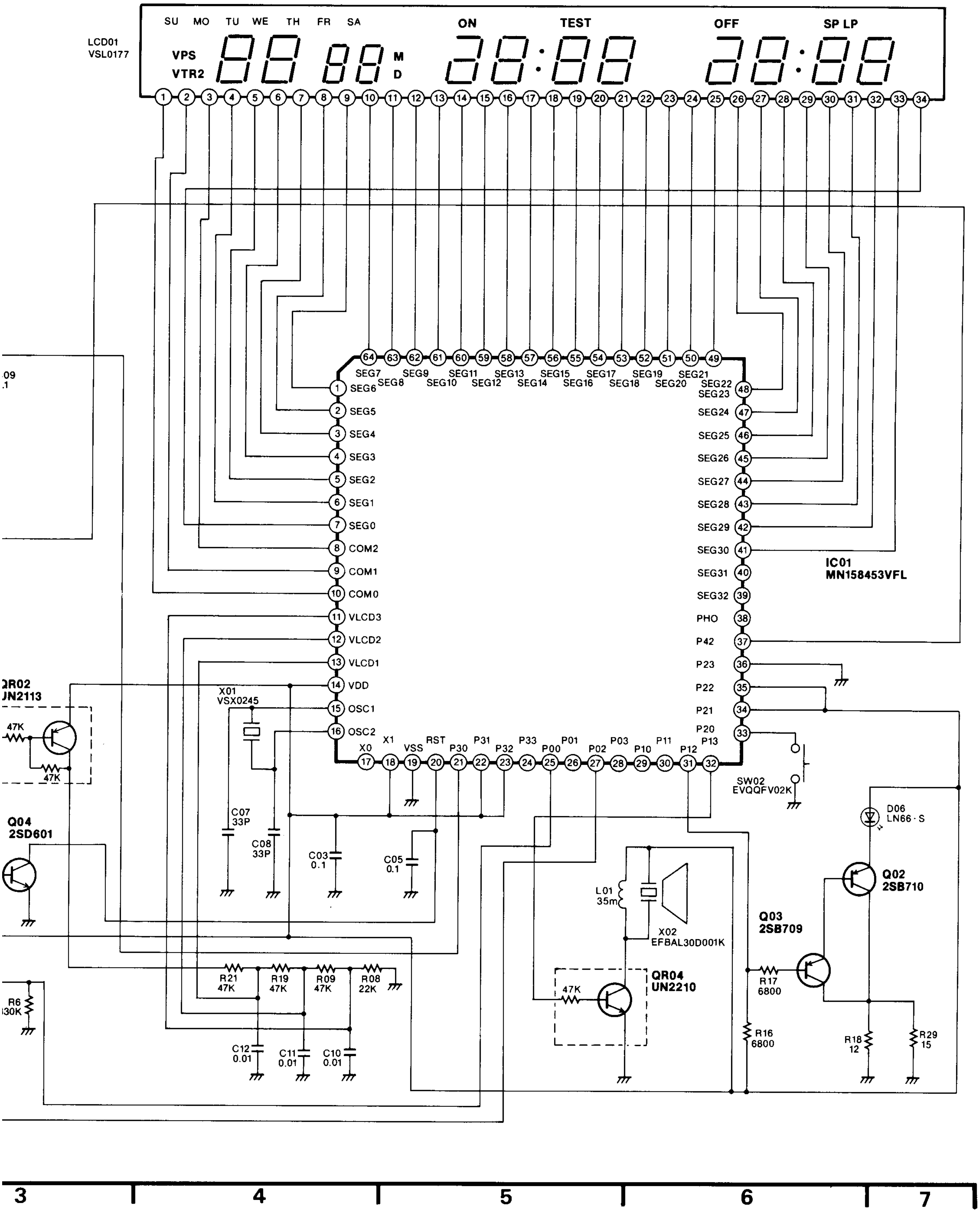

IC1
LA7051
VIDEO IN
AUDIO IN
NC
+B
2
4
3
5
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R5 1000
R4 6800
R12 220
R6 220
D1 MA1075
C6 2200P
C7 56P
R8 3300
C12 10P
L1 82μ
R9 2700
C10 4 P
T1
C9 100P
L5 1μ
R7 1KB
C11 8P
C16 1000P
R13 39K
R14 7500
Q1 2SC3130
R15 10
C15 4P
R16 120
R17 75
C14 10P
C13 5P
R11 220
R10 100
R18 100
RF OUT
D2 HSM88A
T3
L3
L2
UO-1
R19 8200
L4
Q2 2SC3130
C17 27P
R20 8200
R21 560
C18 1.5P
C19 2P
C20 14P
C21 1.4P
C22 VC

3-38. DIGITAL SCANNER SCHEMATIC DIAGRAM
—— UNIT NO.: VEQ0996 ——


LCD01
VSL0177
SU MO TU WE TH FR SA
VPS
VTR2
SW01
VSS0126
OFF
ON
BATTERY
1.5V x 4
R13
1M
C09
0.1
SN01
VSQ0567
or VSQ0571
R01
12
IC02
AN8355S
GND
LED
CS
VCC
POWER
V IN
V REF
PH
CF
V OUT
C+
C−
VR09 30K
C02
16V4.7
R03
220K
R02
680K
R07
56K
C04
0.1
C06
16V47
C13
50V1
R05
47K
D04
MA151
R04
15K
QR02
UN2113
47K
47K
Q04
2SD601
R6
330K
SEG7
SEG6
SEG5
SEG4
SEG3
SEG2
SEG1
SEG0
COM2
COM1
COM0
VLCD3
VLCD2
VLCD1
VDD
OSC1
OSC2
X0
X01
VSX0245
C07
33P
C08
33P
C03
0.1
R21
47K
R19
47K
R09
47K
R08
22K
C12
0.01
C11
0.01
C10
0.01
E
D
C
B
A
1
2
3
4

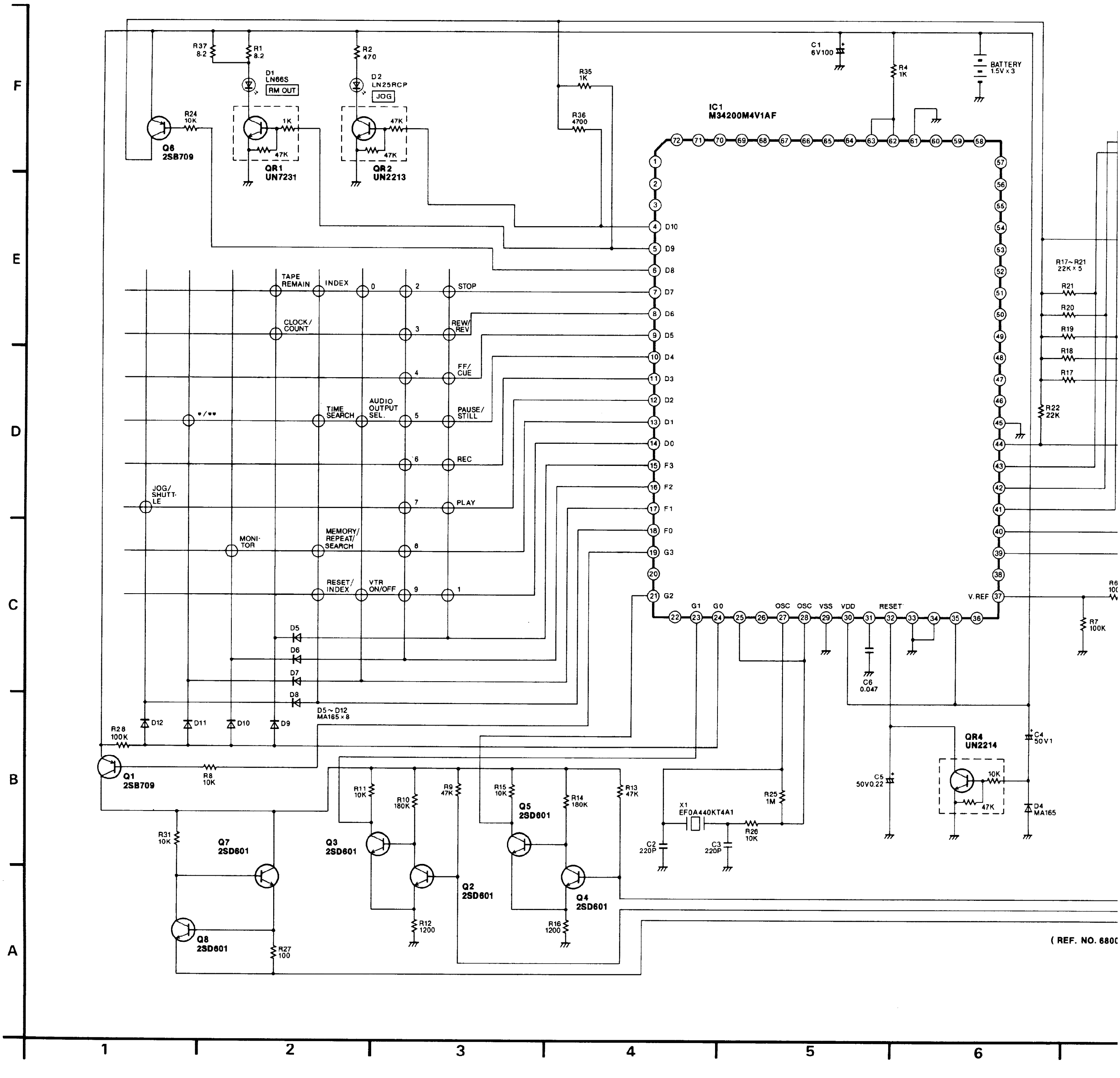
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

AM



LCD01
VSL0177
SU
MO
TU
WE
TH
FR
SA
ON
TEST
OFF
SP LP
VPS
VTR2
M
D
.09
.1
IC01
MN158453VFL
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
SEG16
SEG17
SEG18
SEG19
SEG20
SEG21
SEG22
SEG6
SEG5
SEG4
SEG3
SEG2
SEG1
SEG0
COM2
COM1
COM0
VLCD3
VLCD2
VLCD1
VDD
OSC1
OSC2
X0
X1
VSS
RST
P30
P31
P32
P33
P00
P01
P02
P03
P10
P11
P12
P13
P20
P21
P22
P23
P42
PHO
SEG32
SEG31
SEG30
SEG29
SEG28
SEG27
SEG26
SEG25
SEG24
SEG23
QR02
JN2113
47K
47K
Q04
2SD601
X01
VSX0245
C07
33P
C08
33P
C03
0.1
C05
0.1
R21
47K
R19
47K
R09
47K
R08
22K
C12
0.01
C11
0.01
C10
0.01
R6
30K
SW02
EVQQFV02K
D06
LN66·S
Q02
2SB710
Q03
2SB709
L01
35m
X02
EFBAL30D001K
QR04
UN2210
47K
R17
6800
R16
6800
R18
12
R29
15
3
4
5
6
7

3-40. REMOTE CONTROLLER SCHEMATIC DIAGRAM
—— UNIT NO.: VEQ1211 ——


F
E
D
C
B
A
1
2
3
4
5
6
R37 8.2
R1 8.2
D1 LN66S
RM OUT
R2 470
D2 LN25RCP
JOG
R24 10K
Q6 2SB709
1K
47K
QR1 UN7231
47K
47K
QR2 UN2213
R35 1K
R36 4700
C1 6V100
R4 1K
BATTERY 1.5V × 3
IC1 M34200M4V1AF
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
F3
F2
F1
F0
G3
G2
G1
G0
OSC
OSC
VSS
VDD
RESET
V.REF
TAPE REMAIN
INDEX
0
2
STOP
CLOCK/ COUNT
3
REW/ REV
4
FF/ CUE
*/**
TIME SEARCH
AUDIO OUTPUT SEL.
5
PAUSE/ STILL
6
REC
JOG/ SHUTT-LE
7
PLAY
MONI-TOR
MEMORY/ REPEAT/ SEARCH
8
RESET/ INDEX
VTR ON/OFF
9
1
D5
D6
D7
D8
D5 ~ D12 MA165 × 8
D12
D11
D10
D9
R28 100K
Q1 2SB709
R8 10K
R17 ~ R21 22K × 5
R21
R20
R19
R18
R17
R22 22K
R7 100K
C6 0.047
QR4 UN2214
10K
47K
C4 50V1
D4 MA165
C5 50V0.22
R25 1M
X1 EF0A440KT4A1
R26 10K
C2 220P
C3 220P
R11 10K
R10 180K
R9 47K
R15 10K
Q5 2SD601
R14 180K
R13 47K
R31 10K
Q7 2SD601
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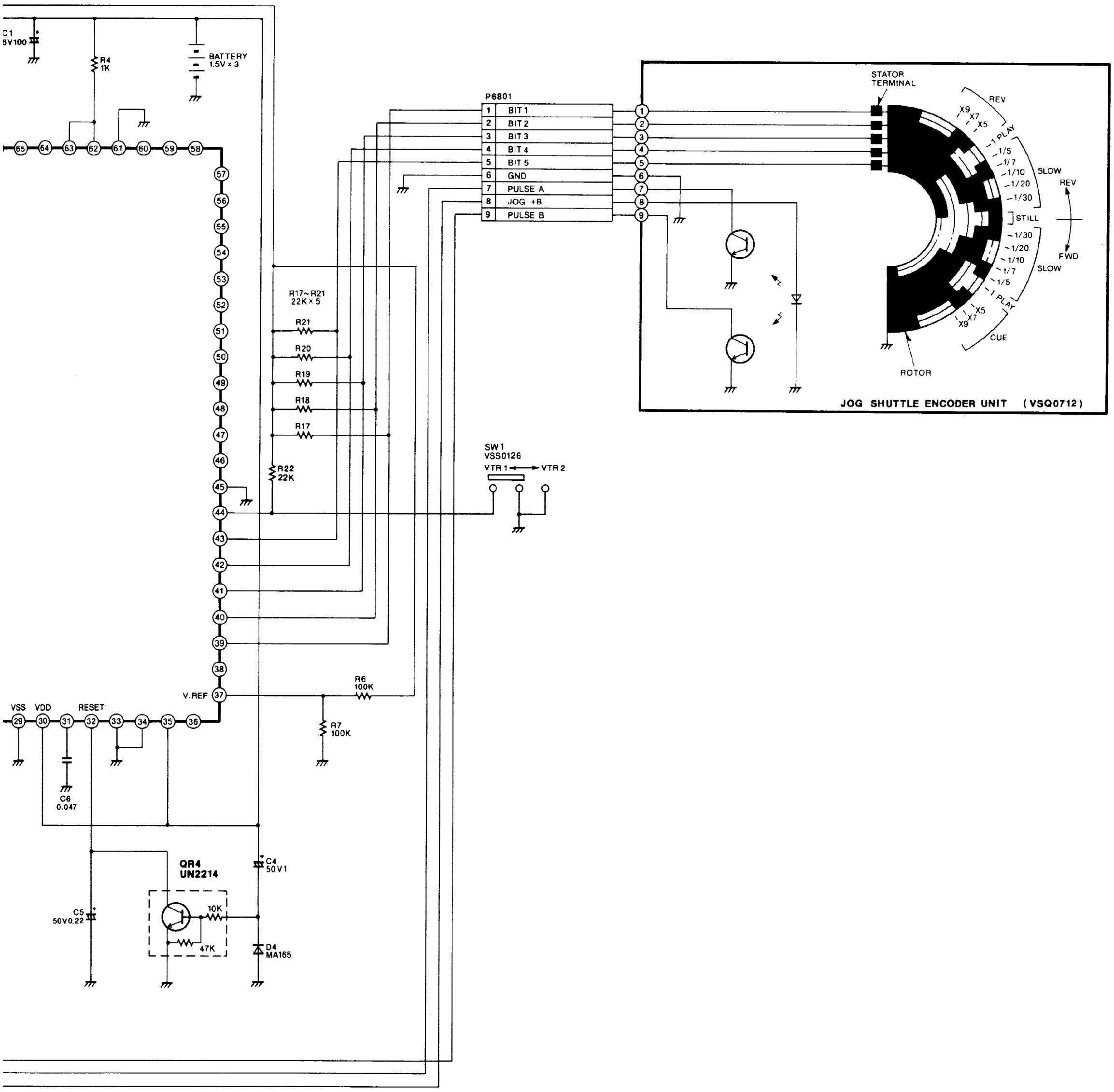
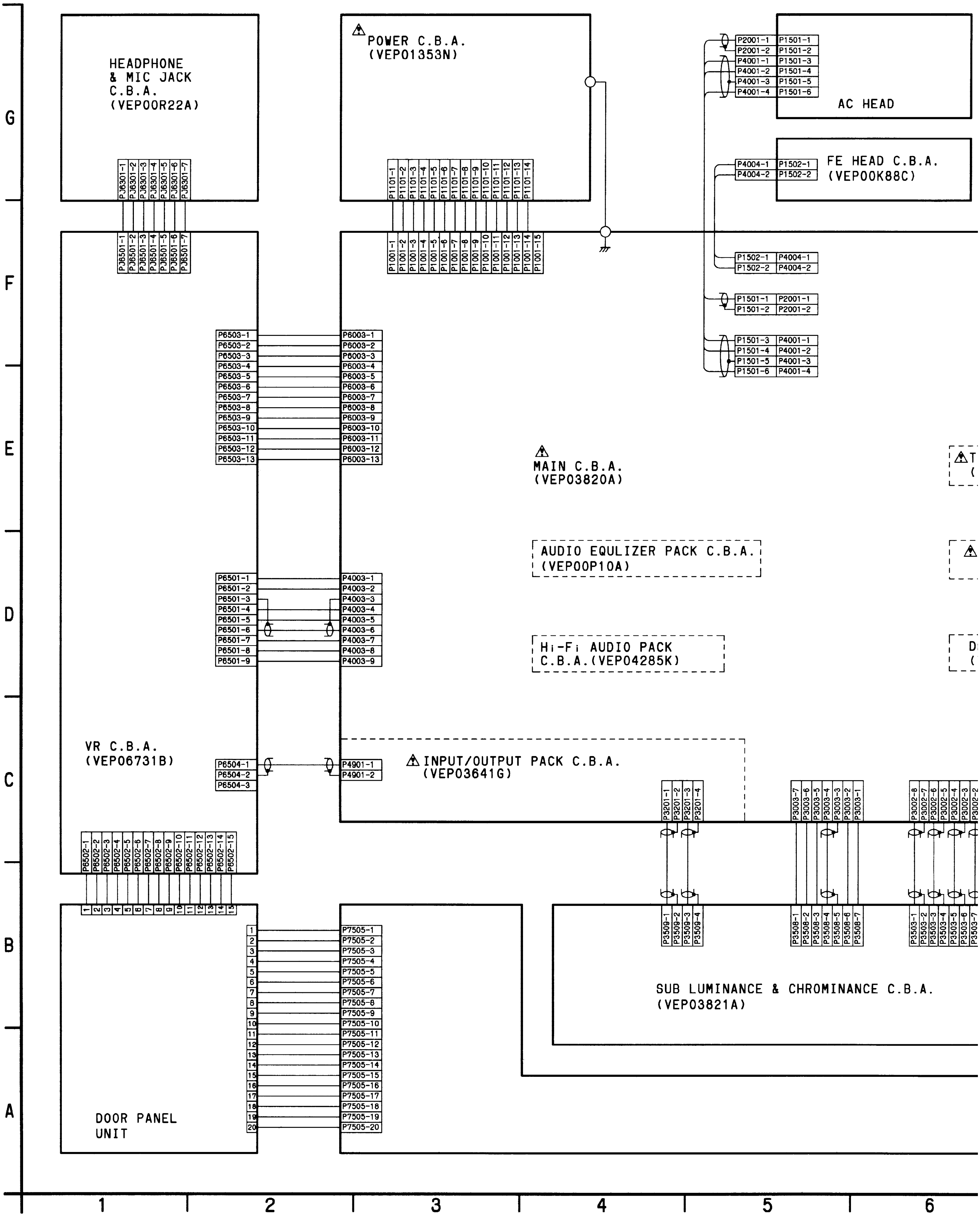
Q2 2SD601
Q4 2SD601
R12 1200
R16 1200
Q8 2SD601
R27 100
(REF. NO. 680

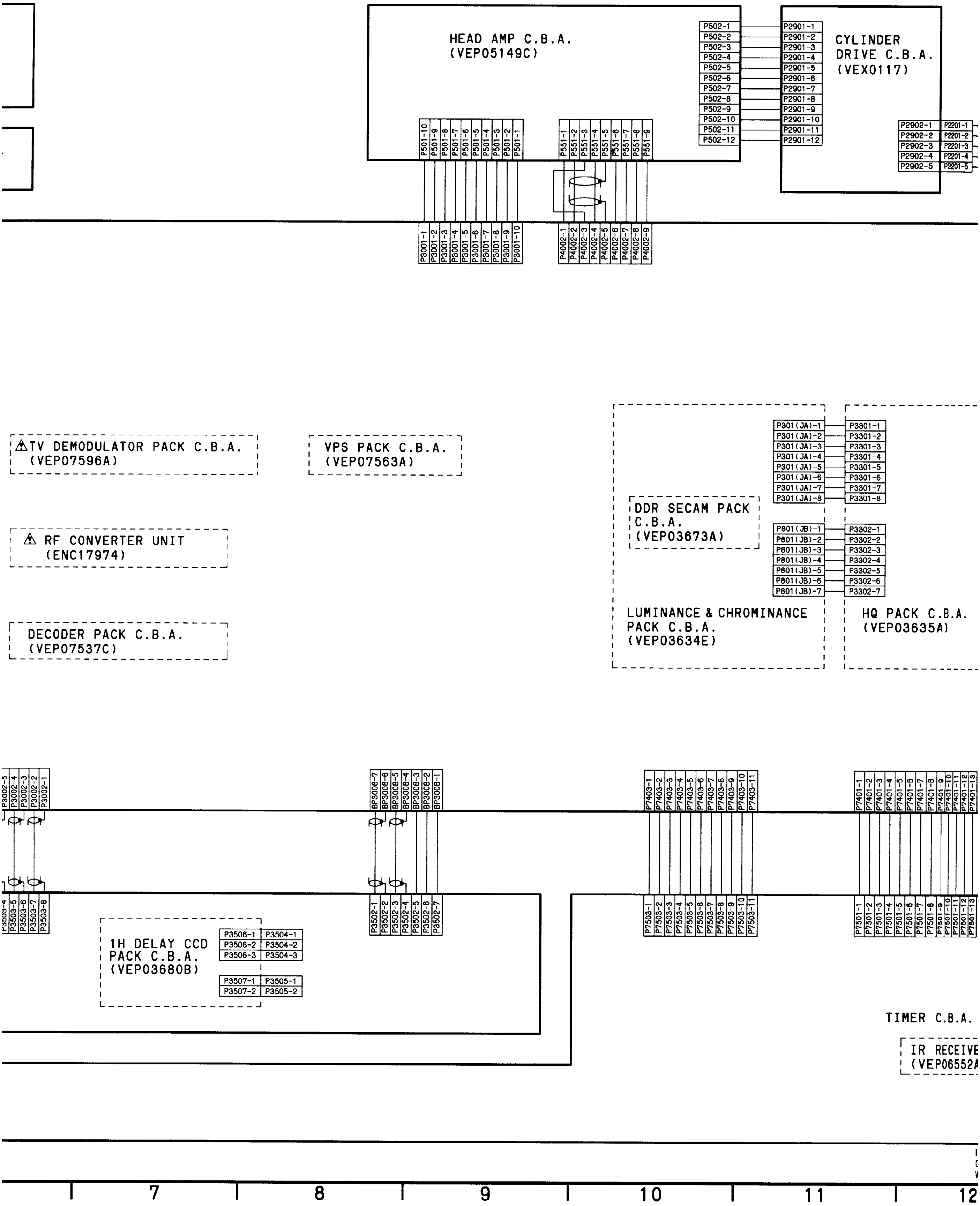

C1
6V100
R4
1K
BATTERY
1.5V x 3
65
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
40
39
38
V. REF
37
VSS
VDD
RESET
29
30
31
32
33
34
35
36
C6
0.047
R17~R21
22K x 5
R21
R20
R19
R18
R17
R22
22K
R6
100K
R7
100K
QR4
UN2214
10K
47K
C5
50V0.22
C4
50V1
D4
MA165
P6801
1 BIT 1
2 BIT 2
3 BIT 3
4 BIT 4
5 BIT 5
6 GND
7 PULSE A
8 JOG +B
9 PULSE B
SW1
VSS0126
VTR 1
VTR 2
1
2
3
4
5
6
7
8
9
STATOR
TERMINAL
REV
X9
X7
X5
1 PLAY
1/5
1/7
1/10
1/20
1/30
SLOW
STILL
1/30
1/20
1/10
1/7
1/5
SLOW
1 PLAY
X5
X7
X9
CUE
REV
FWD
ROTOR
JOG SHUTTLE ENCODER UNIT (VSQ0712)

(REF. NO. 6800 SERIES)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS
SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU
ORDER A PART, PLEASE REFER TO PARTS LIST.

3-42. INTERCONNECTION SCHEMATIC DIAGRAM


HEADPHONE
& MIC JACK
C.B.A.
(VEP00R22A)
PJ6301-1 … PJ6301-7
PJ6501-1 … PJ6501-7
POWER C.B.A.
(VEP01353N)
P1101-1 … P1101-14
P1001-1 … P1001-15
P2001-1
P2001-2
P4001-1
P4001-2
P4001-3
P4001-4
P1501-1
P1501-2
P1501-3
P1501-4
P1501-5
P1501-6
AC HEAD
P4004-1
P4004-2
P1502-1
P1502-2
FE HEAD C.B.A.
(VEP00K88C)
P6503-1 … P6503-13
P6003-1 … P6003-13
MAIN C.B.A.
(VEP03820A)
AUDIO EQULIZER PACK C.B.A.
(VEP00P10A)
Hi-Fi AUDIO PACK
C.B.A.(VEP04285K)
P6501-1 … P6501-9
P4003-1 … P4003-9
VR C.B.A.
(VEP06731B)
P6504-1
P6504-2
P6504-3
P4901-1
P4901-2
INPUT/OUTPUT PACK C.B.A.
(VEP03641G)
P3201-1 … P3201-4
P3003-7 … P3003-1
P3002-8 … P3002-2
P6502-1 … P6502-15
1 … 15
P3509-1 … P3509-4
P3508-1 … P3508-7
P3503-1 … P3503-7
1 … 20
P7505-1 … P7505-20
SUB LUMINANCE & CHROMINANCE C.B.A.
(VEP03821A)
DOOR PANEL
UNIT
G
F
E
D
C
B
A
1
2
3
4
5
6


HEAD AMP C.B.A.
(VEP05149C)
P502-1
P502-2
P502-3
P502-4
P502-5
P502-6
P502-7
P502-8
P502-9
P502-10
P502-11
P502-12
P2901-1
P2901-2
P2901-3
P2901-4
P2901-5
P2901-6
P2901-7
P2901-8
P2901-9
P2901-10
P2901-11
P2901-12
CYLINDER
DRIVE C.B.A.
(VEX0117)
P2902-1
P2902-2
P2902-3
P2902-4
P2902-5
P2201-1
P2201-2
P2201-3
P2201-4
P2201-5
P501-10
P501-9
P501-8
P501-7
P501-6
P501-5
P501-4
P501-3
P501-2
P501-1
P551-1
P551-2
P551-3
P551-4
P551-5
P551-6
P551-7
P551-8
P551-9
P3001-1
P3001-2
P3001-3
P3001-4
P3001-5
P3001-6
P3001-7
P3001-8
P3001-9
P3001-10
P4002-1
P4002-2
P4002-3
P4002-4
P4002-5
P4002-6
P4002-7
P4002-8
P4002-9
⚠TV DEMODULATOR PACK C.B.A.
(VEP07596A)
VPS PACK C.B.A.
(VEP07563A)
⚠ RF CONVERTER UNIT
(ENC17974)
DECODER PACK C.B.A.
(VEP07537C)
P301(JA)-1
P301(JA)-2
P301(JA)-3
P301(JA)-4
P301(JA)-5
P301(JA)-6
P301(JA)-7
P301(JA)-8
P3301-1
P3301-2
P3301-3
P3301-4
P3301-5
P3301-6
P3301-7
P3301-8
DDR SECAM PACK
C.B.A.
(VEP03673A)
P801(JB)-1
P801(JB)-2
P801(JB)-3
P801(JB)-4
P801(JB)-5
P801(JB)-6
P801(JB)-7
P3302-1
P3302-2
P3302-3
P3302-4
P3302-5
P3302-6
P3302-7
LUMINANCE & CHROMINANCE
PACK C.B.A.
(VEP03634E)
HQ PACK C.B.A.
(VEP03635A)
P3002-5
P3002-4
P3002-3
P3002-2
P3002-1
P3503-4
P3503-5
P3503-6
P3503-7
P3503-8
BP3008-7
BP3008-6
BP3008-5
BP3008-4
BP3008-3
BP3008-2
BP3008-1
P3502-1
P3502-2
P3502-3
P3502-4
P3502-5
P3502-6
P3502-7
1H DELAY CCD
PACK C.B.A.
(VEP03680B)
P3506-1
P3506-2
P3506-3
P3504-1
P3504-2
P3504-3
P3507-1
P3507-2
P3505-1
P3505-2
P7403-1
P7403-2
P7403-3
P7403-4
P7403-5
P7403-6
P7403-7
P7403-8
P7403-9
P7403-10
P7403-11
P7503-1
P7503-2
P7503-3
P7503-4
P7503-5
P7503-6
P7503-7
P7503-8
P7503-9
P7503-10
P7503-11
P7401-1
P7401-2
P7401-3
P7401-4
P7401-5
P7401-6
P7401-7
P7401-8
P7401-9
P7401-10
P7401-11
P7401-12
P7401-13
P7501-1
P7501-2
P7501-3
P7501-4
P7501-5
P7501-6
P7501-7
P7501-8
P7501-9
P7501-10
P7501-11
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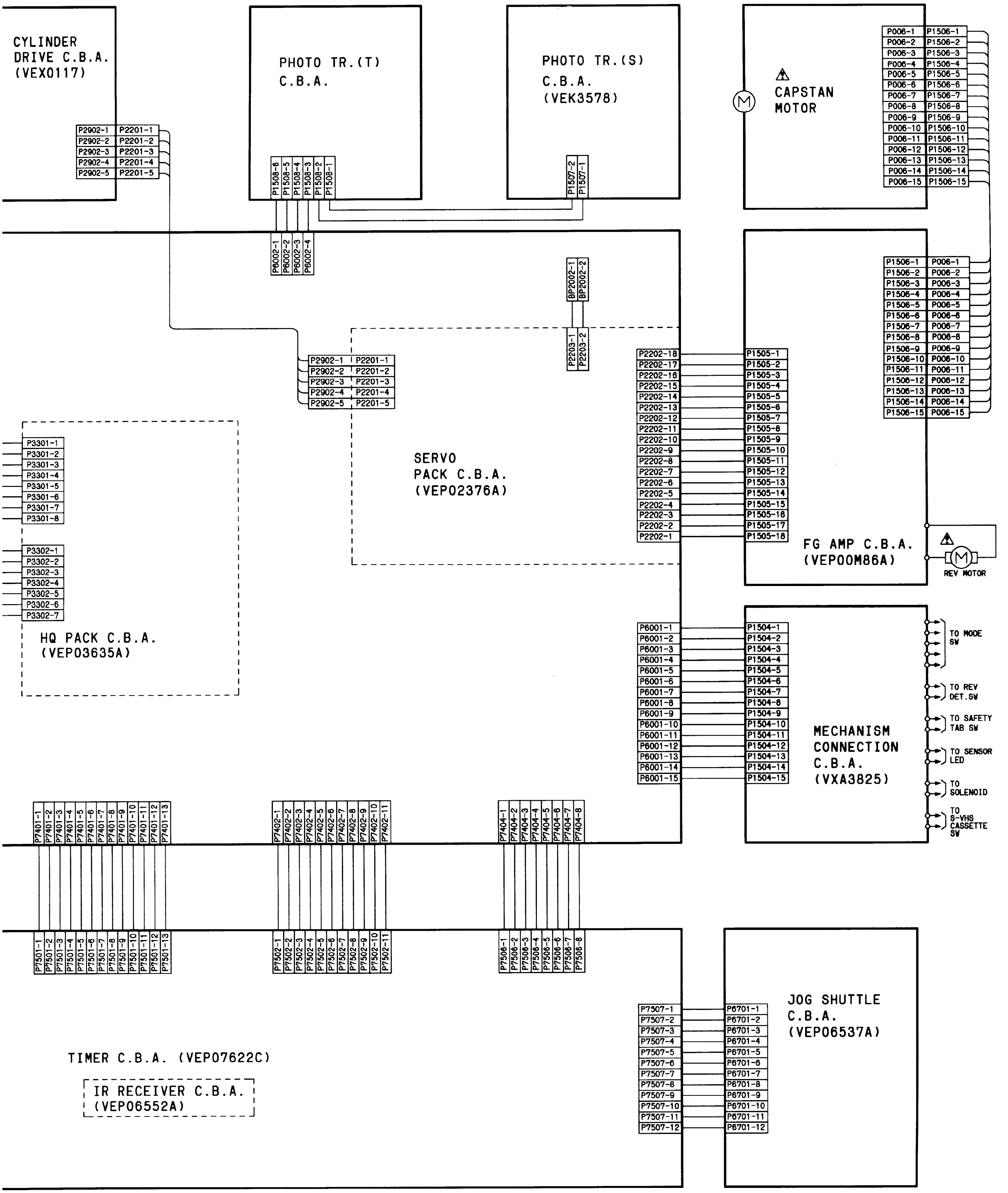
P7501-13
TIMER C.B.A.
IR RECEIVE
(VEP06552
7
8
9
10
11
12


CYLINDER DRIVE C.B.A. (VEX0117)
P2902-1
P2902-2
P2902-3
P2902-4
P2902-5
P2201-1
P2201-2
P2201-3
P2201-4
P2201-5
PHOTO TR.(T) C.B.A.
P1508-6
P1508-5
P1508-4
P1508-3
P1508-2
P1508-1
PHOTO TR.(S) C.B.A. (VEK3578)
P1507-2
P1507-1
⚠ CAPSTAN MOTOR
M
P006-1
P006-2
P006-3
P006-4
P006-5
P006-6
P006-7
P006-8
P006-9
P006-10
P006-11
P006-12
P006-13
P006-14
P006-15
P1506-1
P1506-2
P1506-3
P1506-4
P1506-5
P1506-6
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P1506-8
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P1506-14
P1506-15
P6002-1
P6002-2
P6002-3
P6002-4
BP2002-1
BP2002-2
P2203-1
P2203-2
P2902-1
P2902-2
P2902-3
P2902-4
P2902-5
P2201-1
P2201-2
P2201-3
P2201-4
P2201-5
SERVO PACK C.B.A. (VEP02376A)
P2202-18
P2202-17
P2202-16
P2202-15
P2202-14
P2202-13
P2202-12
P2202-11
P2202-10
P2202-9
P2202-8
P2202-7
P2202-6
P2202-5
P2202-4
P2202-3
P2202-2
P2202-1
P1505-1
P1505-2
P1505-3
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P1505-17
P1505-18
P1506-1
P1506-2
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P1506-8
P1506-9
P1506-10
P1506-11
P1506-12
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P1506-14
P1506-15
P006-1
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P006-4
P006-5
P006-6
P006-7
P006-8
P006-9
P006-10
P006-11
P006-12
P006-13
P006-14
P006-15
FG AMP C.B.A. (VEP00M86A)
⚠
M
REV MOTOR
P3301-1
P3301-2
P3301-3
P3301-4
P3301-5
P3301-6
P3301-7
P3301-8
P3302-1
P3302-2
P3302-3
P3302-4
P3302-5
P3302-6
P3302-7
HQ PACK C.B.A. (VEP03635A)
P6001-1
P6001-2
P6001-3
P6001-4
P6001-5
P6001-6
P6001-7
P6001-8
P6001-9
P6001-10
P6001-11
P6001-12
P6001-13
P6001-14
P6001-15
P1504-1
P1504-2
P1504-3
P1504-4
P1504-5
P1504-6
P1504-7
P1504-8
P1504-9
P1504-10
P1504-11
P1504-12
P1504-13
P1504-14
P1504-15
MECHANISM CONNECTION C.B.A. (VXA3825)
TO MODE SW
TO REV DET.SW
TO SAFETY TAB SW
TO SENSOR LED
TO SOLENOID
TO S-VHS CASSETTE SW
P7401-1
P7401-2
P7401-3
P7401-4
P7401-5
P7401-6
P7401-7
P7401-8
P7401-9
P7401-10
P7401-11
P7401-12
P7401-13
P7402-1
P7402-2
P7402-3
P7402-4
P7402-5
P7402-6
P7402-7
P7402-8
P7402-9
P7402-10
P7402-11
P7404-1
P7404-2
P7404-3
P7404-4
P7404-5
P7404-6
P7404-7
P7404-8
P7501-1
P7501-2
P7501-3
P7501-4
P7501-5
P7501-6
P7501-7
P7501-8
P7501-9
P7501-10
P7501-11
P7501-12
P7501-13
P7502-1
P7502-2
P7502-3
P7502-4
P7502-5
P7502-6
P7502-7
P7502-8
P7502-9
P7502-10
P7502-11
P7506-1
P7506-2
P7506-3
P7506-4
P7506-5
P7506-6
P7506-7
P7506-8
TIMER C.B.A. (VEP07622C)
IR RECEIVER C.B.A. (VEP06552A)
P7507-1
P7507-2
P7507-3
P7507-4
P7507-5
P7507-6
P7507-7
P7507-8
P7507-9
P7507-10
P7507-11
P7507-12
P6701-1
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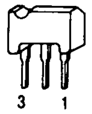
P6701-4
P6701-5
P6701-6
P6701-7
P6701-8
P6701-9
P6701-10
P6701-11
P6701-12
JOG SHUTTLE C.B.A. (VEP06537A)

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

12 13 14 15 16

3-43. ICs & TRs INFORMATION



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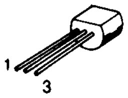
MN1280R
MN1280S



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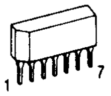

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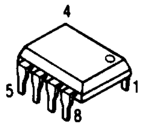

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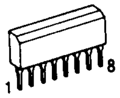

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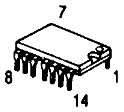

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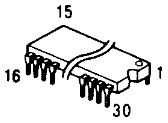

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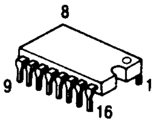

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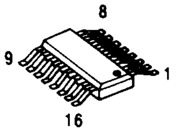

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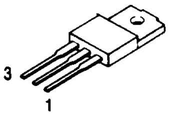
M52055FP
MC14519BF
µPD4052BG



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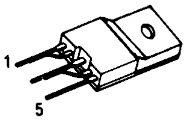

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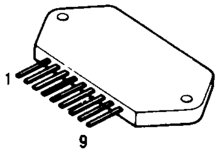

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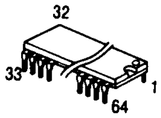

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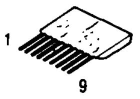
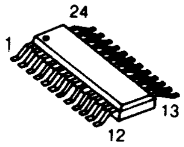


VCR0271



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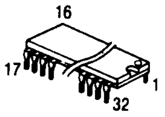
M51293FP



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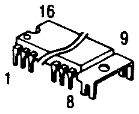

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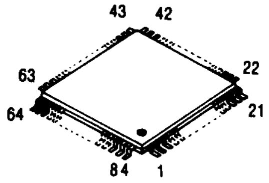
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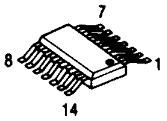
MN188166VDU



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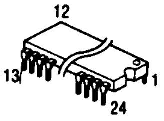

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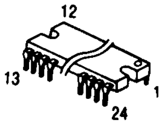

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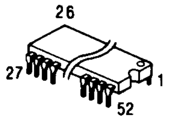
BA6435S



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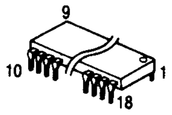

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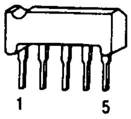

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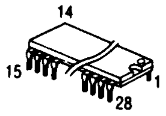

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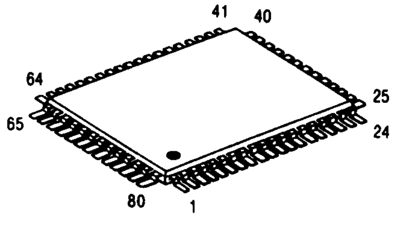
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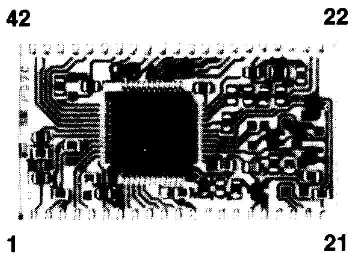

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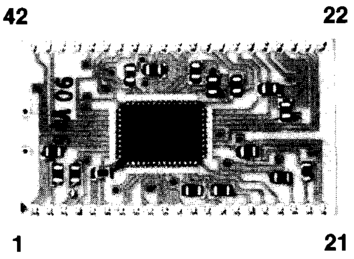

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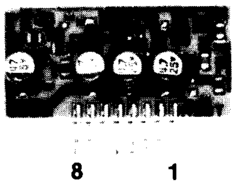

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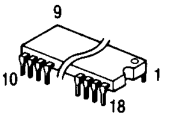

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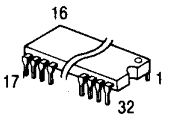

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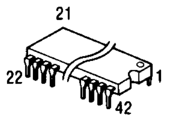

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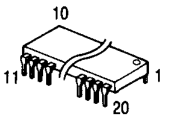

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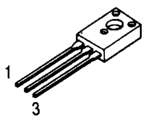

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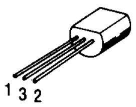

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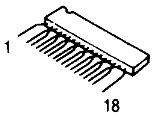

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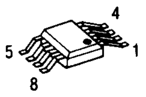

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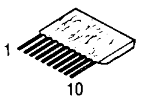

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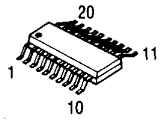

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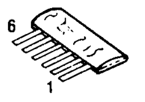

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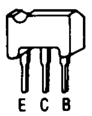

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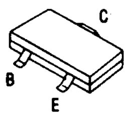
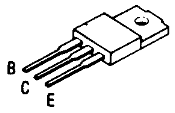
2SD636
2SD638
2SD639
2SD973
2SD1330
2SD1996



2SB709
2SC2295
2SC2404
2SD601
2SD601A
2SD602
2SD1306
2SD1328
2SD1757K
MSB709
MSC2295
MSD601



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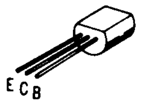
2SD1856



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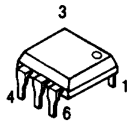
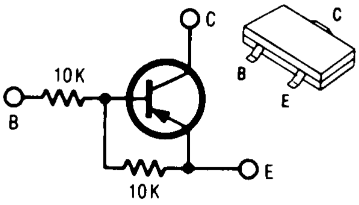


PC111



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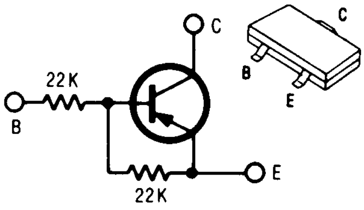
MRN2402



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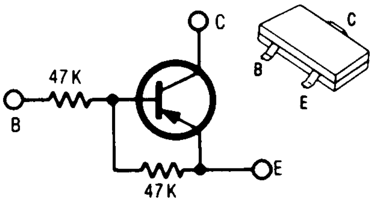

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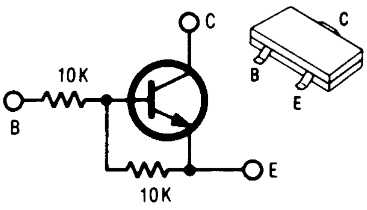

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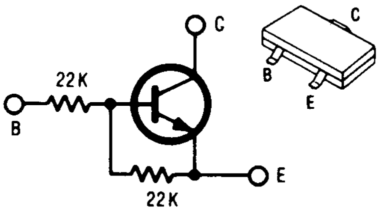

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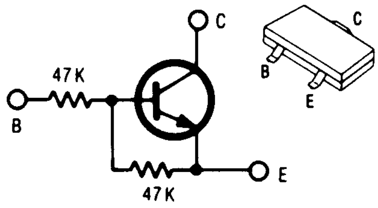

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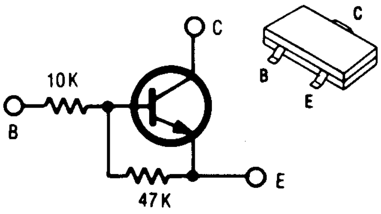
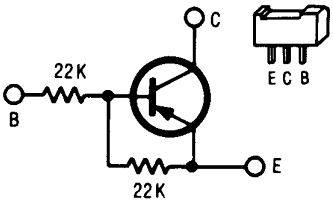
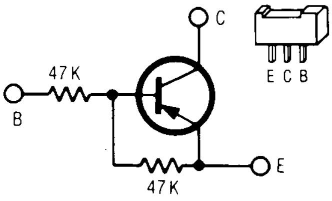


UN2214
MRN1407


22K
22K
B
C
E
E C B

UN1112
UN6112
DTA124EA


47K
47K
B
C
E
E C B

UN1113
UN6113
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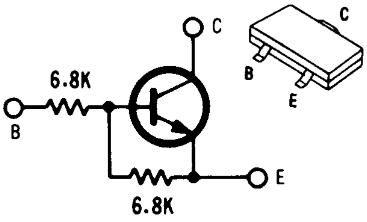
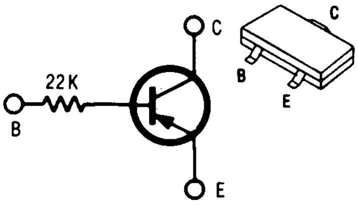


DTC363EK



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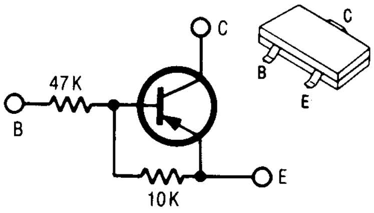

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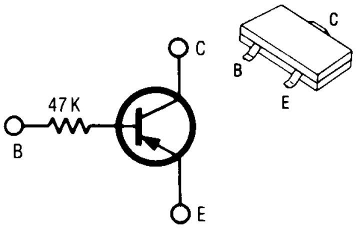
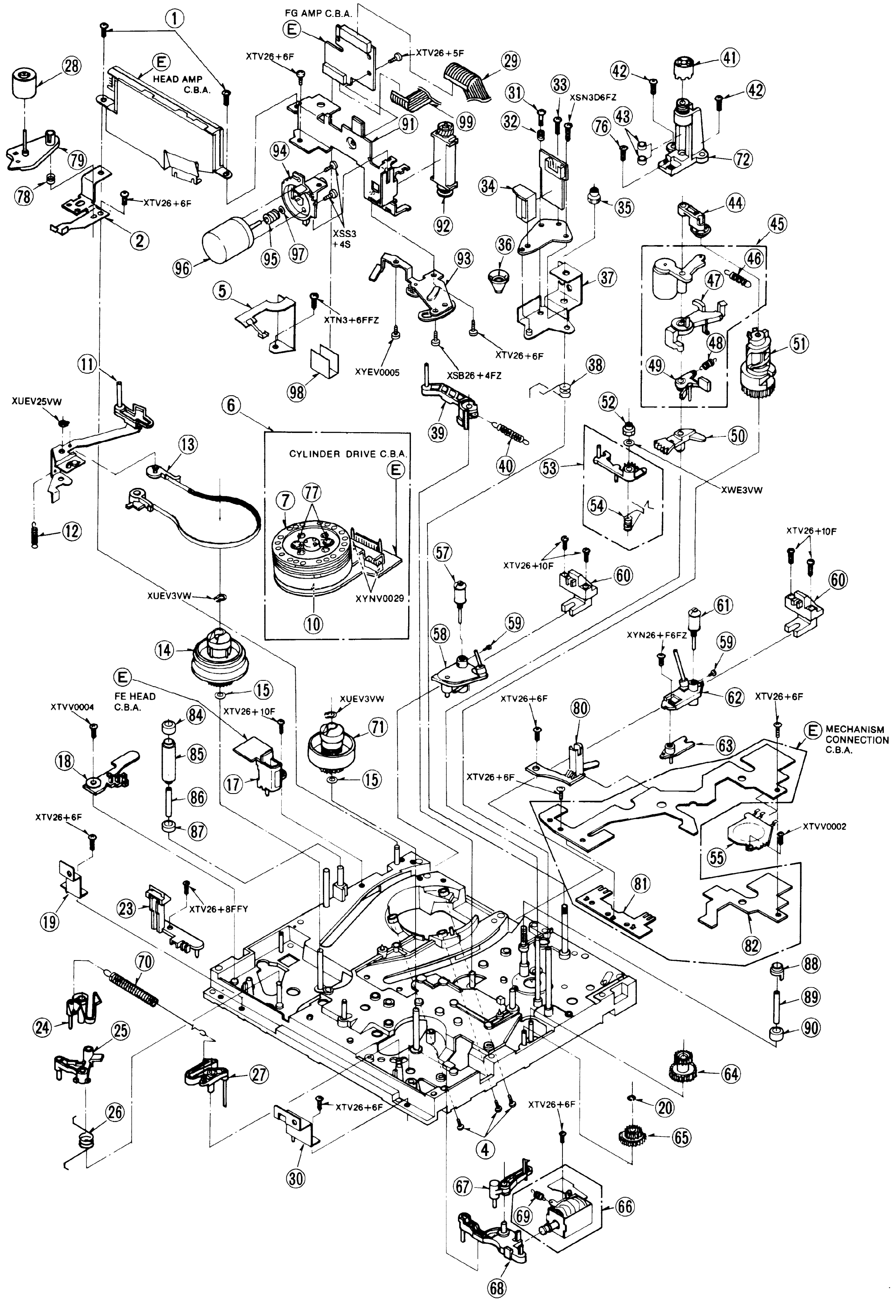


UN2110

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)



①
FG AMP C.B.A.
Ⓔ
XTV26+6F
XTV26+5F
㉙
㉘
Ⓔ
HEAD AMP C.B.A.
㉛
㉝
XSN3D6FZ
㊷
㊶
㊷
㉜
76
㊸
㊾
㉙
91
99
㉜
94
XSS3 +4S
㉞
㉟
72
78
XTV26+6F
②
92
㊹
㊺
96
95
97
93
㊱
㊻
㊼
㉟
⑤
XTN3+6FFZ
㊲
XYEV0005
XSB26+4FZ
XTV26+6F
㊽
51
⑪
98
㊳
㊾
XUEV25VW
⑥
㊴
㊵
52
50
⑬
CYLINDER DRIVE C.B.A.
Ⓔ
53
XWE3VW
⑦
77
54
⑫
XTV26+10F
XTV26+10F
57
60
60
XUEV3VW
XYNV0029
⑩
61
58
59
XYN26+F6FZ
59
⑭
⑮
62
XTV26+6F
Ⓔ
FE HEAD C.B.A.
XTVV0004
XTV26+10F
XUEV3VW
XTV26+6F
80
Ⓔ MECHANISM CONNECTION C.B.A.
84
71
63
⑱
85
⑰
⑮
XTV26+6F
86
XTVV0002
XTV26+6F
87
55
⑲
㉓
XTV26+8FFY
81
82
70
88
89
90
㉔
㉕
㉗
64
㉖
XTV26+6F
⑳
XTV26+6F
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④
㉚
67
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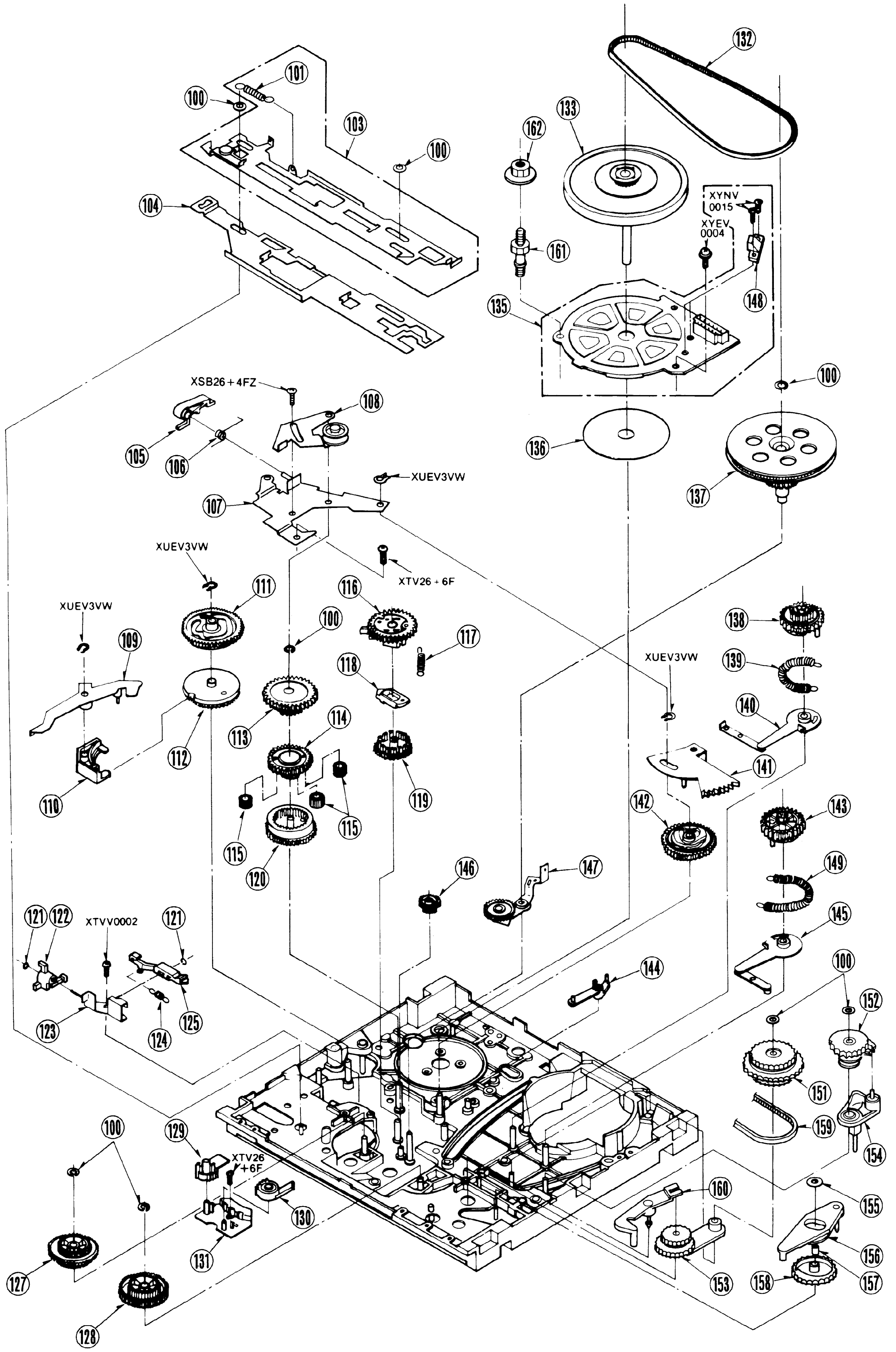
69
68

② CHASSIS PARTS SECTION (2)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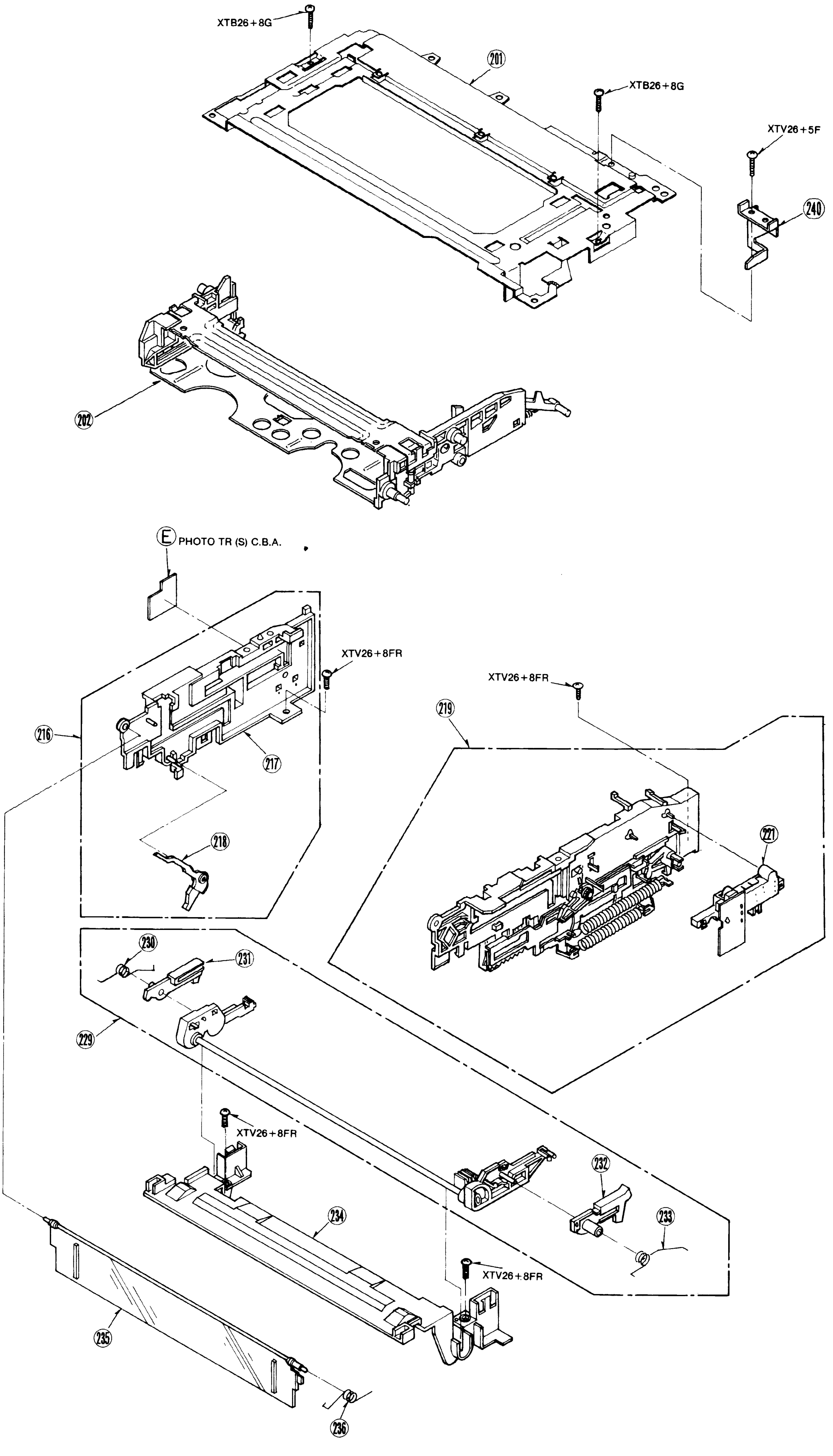
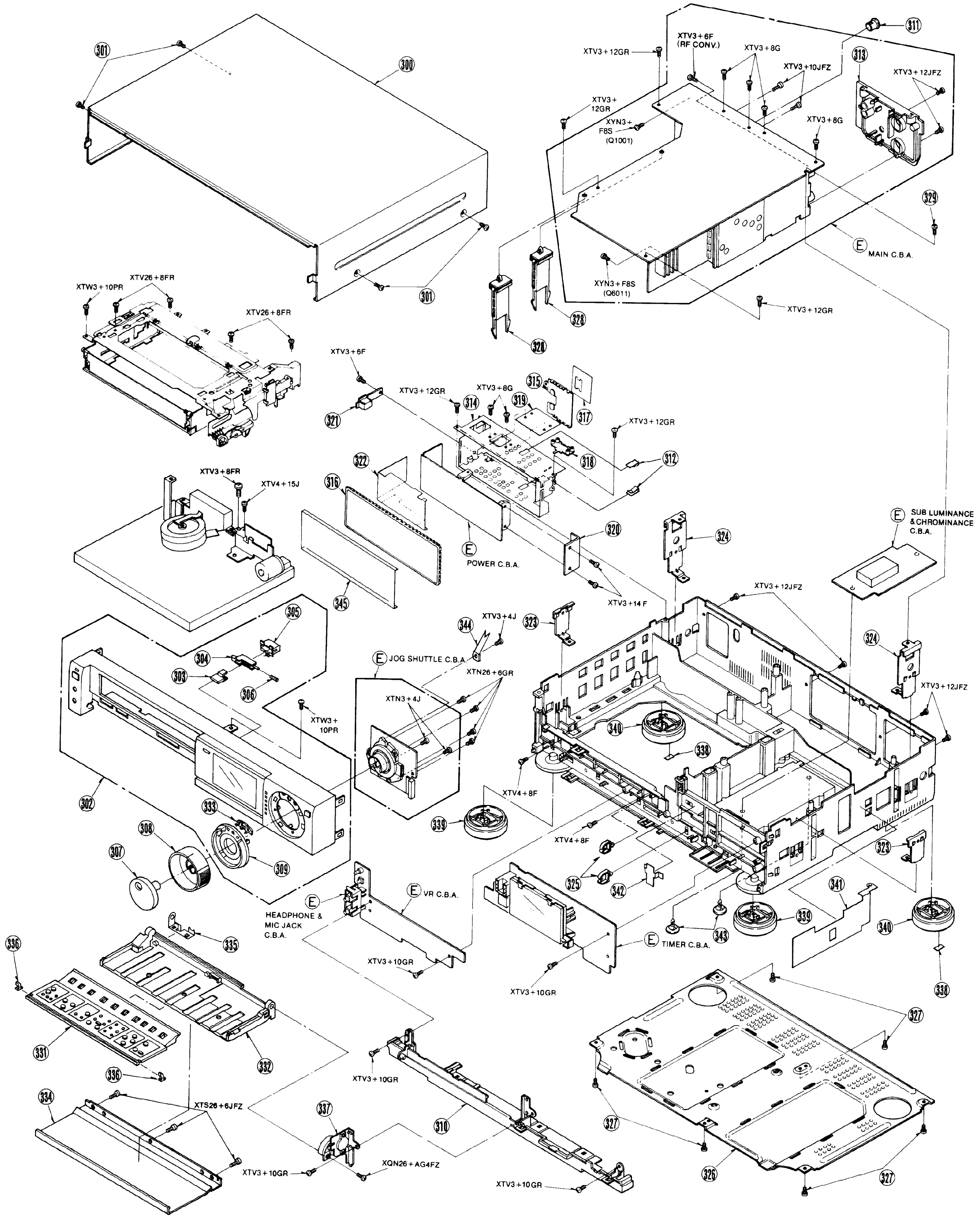
101
100
133
103
162
100
104
XYNV
0015
XYEV
0004
161
148
135
100
XSB26 + 4FZ
108
105
106
136
XUEV3VW
137
107
XUEV3VW
XTV26 + 6F
111
116
100
138
XUEV3VW
109
117
139
118
XUEV3VW
140
114
113
112
141
119
110
142
143
115
115
120
146
147
149
121
122
XTVV0002
121
145
144
100
152
123
124
125
151
159
154
100
129
XTV26
+6F
160
155
130
127
131
156
153
158
157
128

❸ CASSETTE UP MECHANISM SECTION



XTB26+8G
201
XTB26+8G
XTV26+5F
240
202
Ⓔ PHOTO TR (S) C.B.A.
XTV26+8FR
XTV26+8FR
216
217
219
218
221
230
231
229
XTV26+8FR
232
234
233
XTV26+8FR
235
236

❹ CASING PARTS SECTION



301
300
301
301
XTV3+12GR
XTV3+6F
(RF CONV.)
XTV3+8G
XTV3+10JFZ
311
313
XTV3+12JFZ
XTV3+
12GR
XYN3+
F8S
(Q1001)
XTV3+8G
329
E
MAIN C.B.A.
XYN3+F8S
(Q6011)
328
328
XTV3+12GR
XTW3+10PR
XTV26+8FR
XTV26+8FR
XTV3+6F
321
XTV3+12GR
314
XTV3+8G
315
319
317
XTV3+12GR
318
312
322
316
XTV3+8FR
XTV4+15J
E
POWER C.B.A.
320
XTV3+14F
345
324
E
SUB LUMINANCE
&CHROMINANCE
C.B.A.
XTV3+12JFZ
305
304
303
306
XTW3+
10PR
344
XTV3+4J
323
E
JOG SHUTTLE C.B.A.
XTN26+6GR
XTN3+4J
324
XTV3+12JFZ
340
338
XTV4+8F
339
302
333
308
307
309
XTV4+8F
325
342
323
E
HEADPHONE &
MIC JACK
C.B.A.
E
VR C.B.A.
341
343
339
340
E
TIMER C.B.A.
338
336
335
XTV3+10GR
XTV3+10GR
327
331
332
336
334
XTS26+6JFZ
XTV3+10GR
337
310
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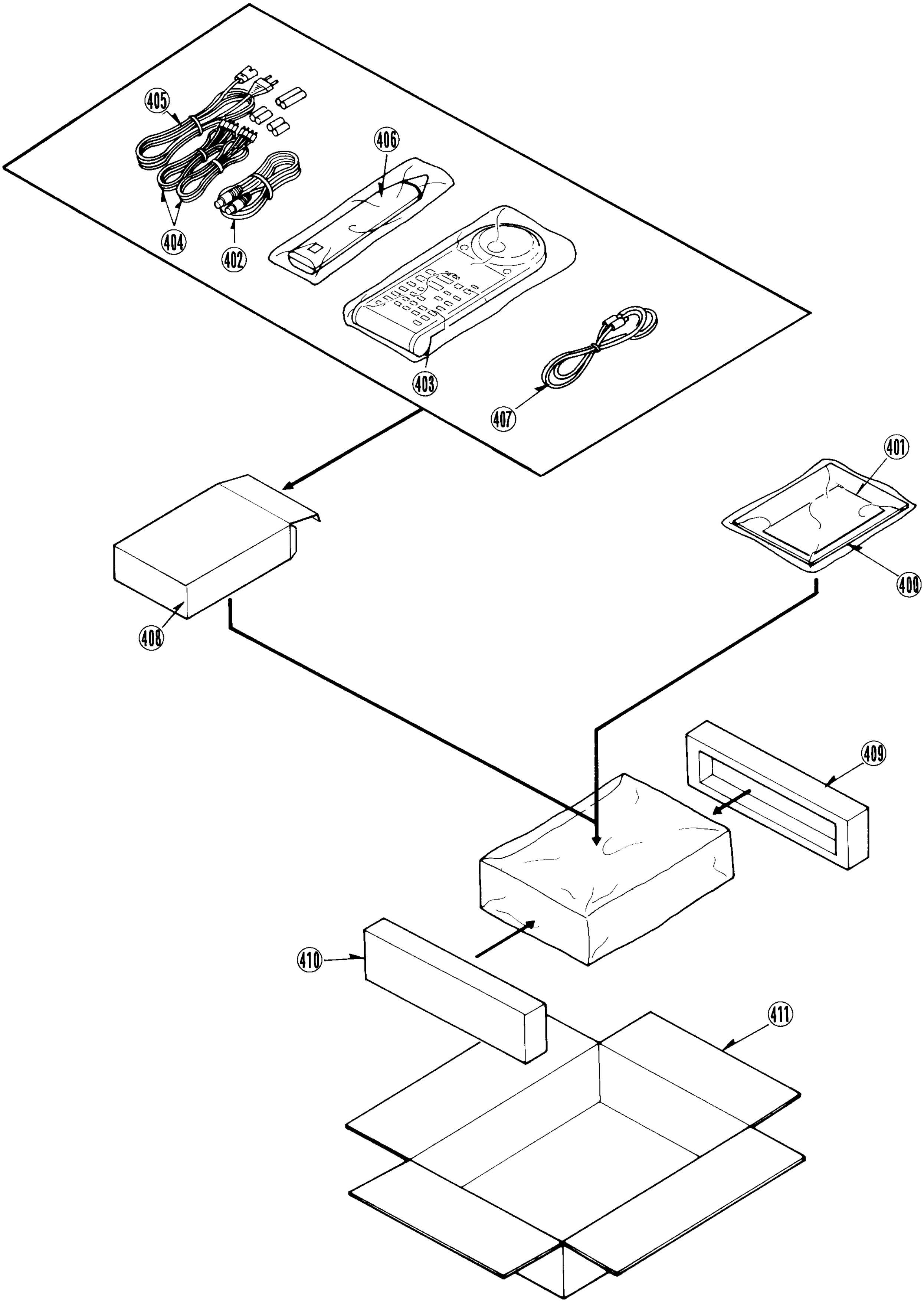
XTV3+10GR
326
327

❺ PACKING PARTS SECTION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408
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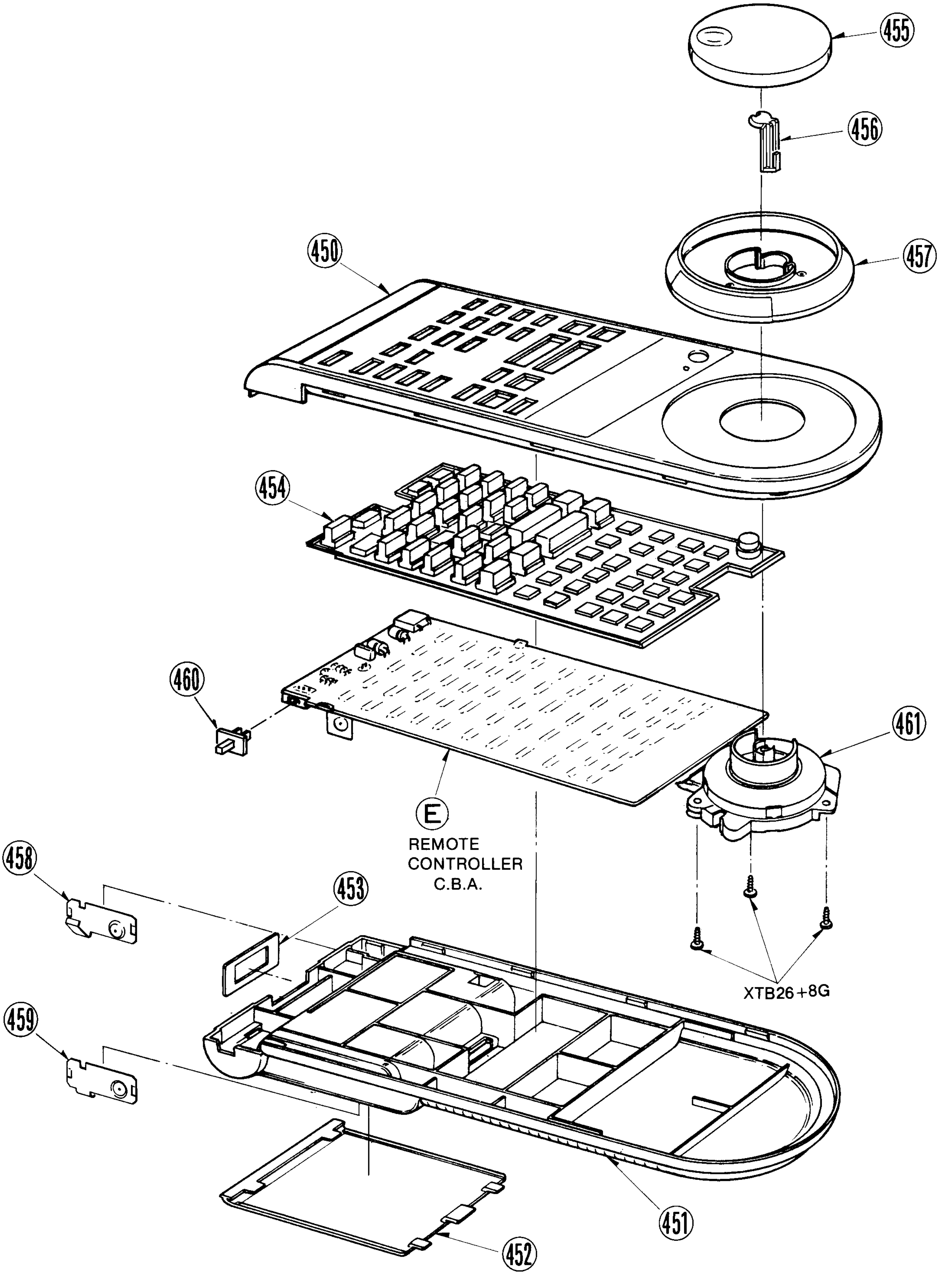
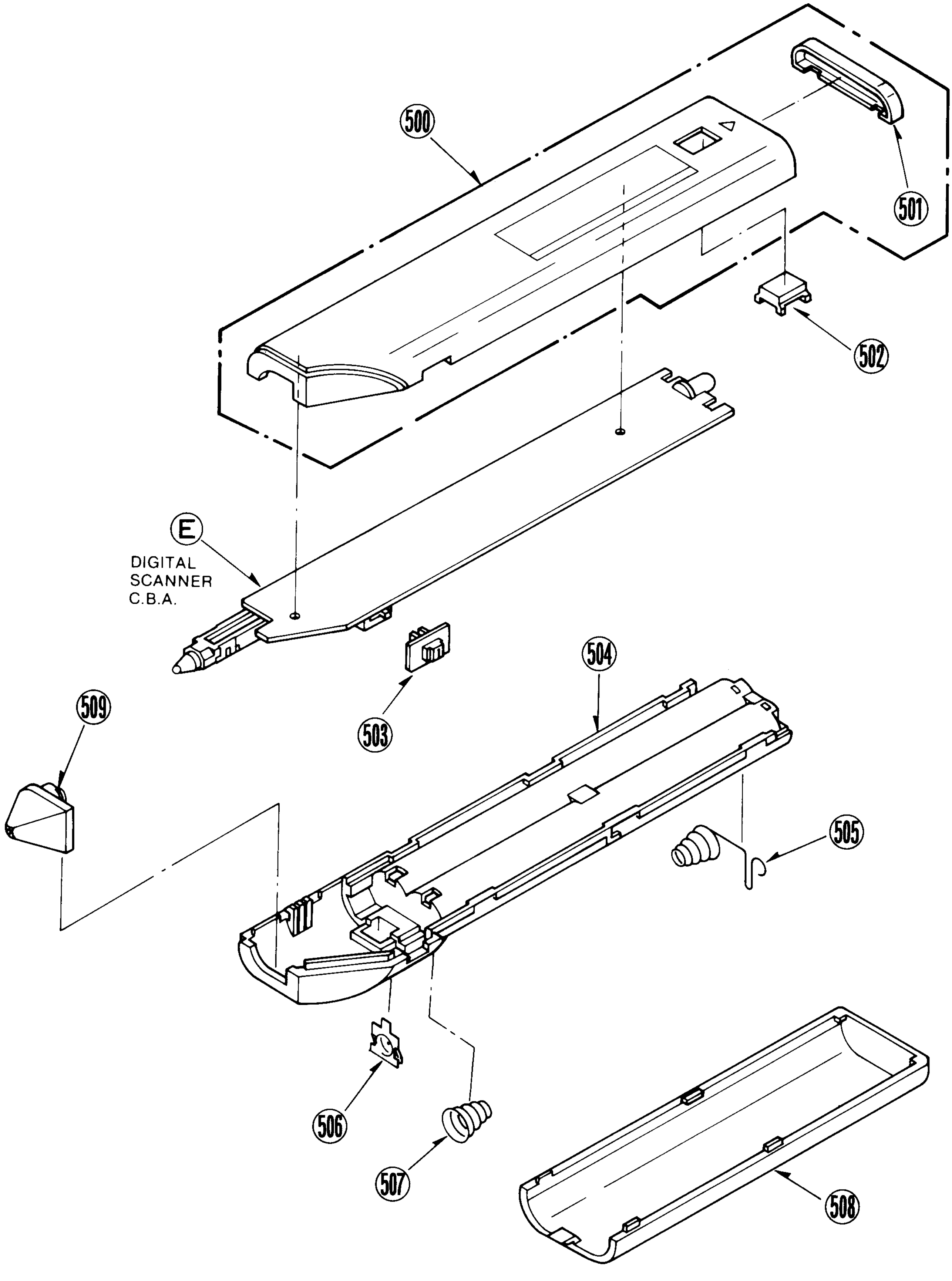
410
411

❻ REMOTE CONTROLLER UNIT


455
456
457
450
454
460
461
E
REMOTE CONTROLLER C.B.A.
458
453
XTB26+8G
459
451
452

❼ DIGITAL SCANNER UNIT


500
501
502
E
DIGITAL
SCANNER
C.B.A.
503
504
509
505
506
507
508

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA7174	HEAD AMP MOUNT ANGLE	1	
4(1)		VHD0342	CYLINDER SCREW	3	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0769	CYLINDER UNIT	1	<!>
7(1)		VEH0467	UPPER CYLINDER UNIT	1	
10(1)		VSC2188	CYLINDER C.B.A.SHIELD PLATE	1	
11(1)		VXL1855	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0179	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
17(1)		VBS0038	FE HEAD	1	
18(1)		VMD1316	TENSION SPRING HOOK	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	1	
23(1)		VES0486	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXP1092	IMPEDANCE ROLLER UNIT	1	
29(1)		VWJ0392	FLEXIBLE CABLE(18P)	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1857	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0597	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0045	M3 NYLON NUT	1	
53(1)		VXL2027	P5 UNIT	1	
54(1)		VMB2718	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP1093	ROLLER POST (S) UNIT	1	
58(1)		VXA4106	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP1094	ROLLER POST (T) UNIT	1	
62(1)		VXA3876	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0664	CONNECTION GEAR	1	
66(1)		VEK3347	SOLENOID UNIT	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML2048	SOLENOID LEVER	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB2012	MAIN BRAKE SPRING	1	
71(1)		VXR0176	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0553	UPPER CYLINDER SCREW	2	
78(1)		VMB1741	IMPEDANCE ARM SPRING	1	
79(1)		VML2308	IMPEDANCE ROLLER ARM	1	
80(1)		VXA3520	LED HOLDER UNIT	1	
81(1)		VMA7829	REINFORCEMENT PLATE (F)	1	
82(1)		VMA7830	REINFORCEMENT PLATE (R)	1	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1304	SUPPLY ROLLER	1	
86(1)		VMX1581	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY LOWER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VMA7832	MOTOR MOUNT PLATE UNIT	1	
92(1)		VXA3517	WORM WHEEL BEARING UNIT	1	
93(1)		VXA4315	TENSION PULLEY BASE (A)	1	
			UNIT		
94(1)		VXA3564	REEL MOTOR BRACKET UNIT	1	
95(1)		VXP1208	WORM GEAR UNIT	1	
96(1)		VEM0320	REV MOTOR	1	
97(1)		VMX1734	WORM WASHER	1	
98(1)		VWJ15TW060M	FLEXIBLE CADE (15P)	1	
99(1)		VWJ0357	FLEXIBLE CADE(15P)	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1883	SUB LEVER SPRING	1	
103(2)		VXA3510	SUB LEVER UNIT	1	
104(2)		VMM0204	MAIN LEVER	1	
105(2)		VXL2088	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1031	TAKE UP REEL GEAR UNIT	1	
128(2)		VXP0981	SUPPLY REEL GEAR UNIT	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP1113	ROTOR UNIT	1	
135(2)		VEK4097	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP1050	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0516	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML2266	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
151(2)		VXP1029	REVIEW CLUTCH UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
152(2)		VXP1030	TENSION RELEASE CLUTCH UNIT	1	
153(2)		VXL1851	REVIEW ARM UNIT	1	
154(2)		VML2197	TENSION RELEASE LEVER	1	
155(2)		VMX1536	CUT WASHER	1	
156(2)		VML2233	SUB CAM FOLLOWER	1	
157(2)		VMX1495	RUBBER STOPPER	1	
158(2)		VDG0517	SUB LEVER CAM	1	
159(2)		VDV0199	REVIEW CLUTCH TIMING BELT	1	
160(2)		VML2200	REVIEW CONTROL LEVER	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA4325	CASSETTE HOLDER UNIT	1	
216(3)		VXA4357	SIDE PLATE (L) UNIT	1	
217(3)		VMD1726	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA4076	SIDE PLATE (R) UNIT	1	
221(3)		VXA4642	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM (L)	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP3408	TOP PANEL UNIT	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VYP3387	FRONT PANEL (1) UNIT	1	
303(4)		VGU4497	DOOR OPEN BUTTON	1	
304(4)		VGU4498	DOOR LOCK LEVER	1	
305(4)		VGU4829	LOCK LEVER HOLDER	1	
306(4)		VMB1963	LOCK LEVER SPRING	1	
307(4)		VXU1027	JOG KNOB UNIT	1	
308(4)		VGU5425	SHUTTLE KNOB	1	
309(4)		VGP2769	JOG/SHUTTLE DECORATION RING	1	
310(4)		VYF1496	SUPPORT PANEL UNIT	1	
311(4)		VGQ1421	SOCKET CAP	1	
312(4)		VMC0357	Tr. HOLDER SPRING	2	
313(4)		VJH0510	RF & ANT. BOARD	1	
314(4)		VXA3571	POWER SHIELD PLATE (MAIN)	1	
315(4)		VSC2397	POWER SHIELD PLATE (TOP)	1	
316(4)		VSC2237	POWER SHIELD PLATE (BOTTOM)	1	
317(4)		VGH1476	POWER NAME PLATE	1	
318(4)		VGQ1377	IC HOLDER	1	
319(4)		VMZ1224	INSULATION SHEET	1	<!>
320(4)		VSC2238	HEAT SINK	1	
321(4)		VMP1734	SCREW STOPPER ANGLE	1	
322(4)		VMZ1140	BARRIER	1	<!>
323(4)		VMP0442	TOP HOLDER ANGLE (FRONT)	2	
324(4)		VMP1855	TOP HOLDER ANGLE (REAR)	2	
325(4)		VJF0442	WIRE SADDLE	2	
326(4)		VKU0302	BOTTOM PLATE	1	
327(4)		VHD0059	BOTTOM PLATE SCREW	6	
328(4)		VKC0354	MAIN HINGE CLIP	1	
329(4)		VHD0418	MAIN SCREW	1	
331(4)		VES0591	KEY BOARD PANEL UNIT	1	
332(4)		VGP2501	DOOR PANEL	1	
333(4)		VGL0441	JOG PANEL LIGHT	1	
334(4)		VYC0441	DOOR ALUMINUM UNIT	1	
335(4)		VMC0612	PANEL EARTH SPRING	1	
336(4)		VMT0260	CUSHION RUBBER	2	
337(4)		VXU0878	DOOR GEAR UNIT	1	
338(4)		VKA0084	RUBBER FOOT	2	
339(4)		VKA0123	LEG (F)	2	
340(4)		VKA0124	LEG (R)	2	
341(4)		VXA3708	SHIELD PLATE UNIT	1	
342(4)		VMZ1407	TIMER BARRIER	1	
343(4)		VMX1798	C.B.A. SUPPORTER	2	
344(4)		VMC0729	JOG/SHUTTLE SPRING	1	
345(4)		VMZ1824	POWER BARRIER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
400(5)		VQT3931	OPERATING INSTRUCTIONS	1	<!>
			(ITALIAN)		
400(5)		VQT3936	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH/GERMAN)		
400(5)		VQT3937	OPERATING INSTRUCTIONS	1	<!>
			(FRENCH/DUTCH)		
401(5)		VQC1752	PROGRAMME SHEET	1	
402(5)		VJA0376	DIN RF CABLE	1	
403(5)		VEQ1211	REMOTE CONTROLLER UNIT	1	
404(5)		VJA0231	AUDIO CABLE	2	
405(5)		VJA0449	AC CORD	1	<!>
406(5)		VEQ0996	DIGITAL SCANNER UNIT	1	
407(5)		VJA0453	S-VIDEO 4P CABLE	1	
408(5)		VPK0834	ACCESSORIES PACKING	1	
409(5)		VPN2349	CUSHION (R)	1	
410(5)		VPN2348	CUSHION (L)	1	
411(5)		VPG5721	PACKING	1	
450(6)		VYK3558	TOP COVER UNIT	1	
451(6)		VKM2089	BOTTOM COVER	1	
452(6)		VKF1291	BATTERY COVER	1	
453(6)		VKW0878	IR WINDOW	1	
454(6)		VSP0565	RUBBER CONTACT	1	
455(6)		VGU5025	JOG KNOB	1	
456(6)		VMC0465	JOG SPRING	1	
457(6)		VGU5026	SHUTTLE KNOB	1	
458(6)		VJR0498	ELECTRODE (A)	1	
459(6)		VJR0509	ELECTRODE (B)	1	
460(6)		VGU5027	SELECT KNOB	1	
461(6)		VSQ0712	JOG/SHUTTLE ENCODER UNIT	1	
500(7)		VYK2644	TOP COVER UNIT	1	
501(7)		VKW0940	IR WINDOW	1	
502(7)		VGU4099	TRANSMISSION BUTTON	1	
503(7)		VGU4100	POWER SW KNOB	1	
504(7)		VKM1331	BOTTOM COVER	1	
505(7)		VJR0272	ELECTRODE (COMMON)	1	
506(7)		VJR0411	ELECTRODE (+)	1	
507(7)		VJR0412	ELECTRODE (-)	1	
508(7)		VKF1173	BATTERY COVER	1	
509(7)		VKM1332	SENSOR CAP	1	
			SERVICING FIXTURES & TOOLS		
		VFJ8125H3F	VHS ALIGNMENT TAPE(PAL)	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHIT GAUGE	1	
		VFK0328	H-POSITION ADJUSTMENT	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHIT ADJUSTMENT FIXTURE	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0341	UPPER CYLINDER REMOVER	1	
		VFK0582	8 PIN EXTENSION CABLE	1	
		VFK0583	9 PIN EXTENSION CABLE	1	
		VFK0584	11 PIN EXTENSION CABLE	1	
		VFK0585	12 PIN EXTENSION CABLE	1	
		VFK0586	15 PIN EXTENSION CABLE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.
4.The P.C.Board units marked width'█'show below the main assembled parts.
5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03820A	MAIN C.B.A.	1	<!> (NLA) INCLUDING THE SERVO PACK C.B.A. (VEP02376A), LUMINANCE & CHROMINANCE PACK C.B.A.(VEP03634E), DDR SECAM PACK C.B.A. (VEP03673A), HQ PACK C.B.A. (VEP03635A), INPUT/OUTPUT PACK C.B.A.(VEP03641G), TV DEMODULATOR PACK C.B.A.(VEP07596A), DECODER PACK C.B.A. (VEP07537C), VPS PACK C.B.A. (VEP07563A), Hi-Fi AUDIO PACK C.B.A. (VEP04285K), AUDIO EQULIZER PACK C.B.A. (VEP00P10A).
		VEP02376A	SERVO PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP03634E	LUMINANCE & CHROMINANCE PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP03673A	DDR SECAM PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP03635A	HQ PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP03641G	INPUT/OUTPUT PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP07596A	TV DEMODELATOR PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP07537C	DECODER PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP07563A	VPS PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP04285K	Hi-Fi AUDIO PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP00P10A	AUDIO EQULIZER PACK C.B.A.	1	(NLA) INCLUDED IN MAIN C.B.A.(VEP03820A).
		VEP03821A	SUB LUMINANCE & CHROMINANCE C.B.A.	1	(NLA) INCLUDING THE 1H DELAY CCD PACK C.B.A.(VEP03680B).
		VEP03680B	1H DELAY CCD PACK C.B.A.	1	(NLA) INCLUDED IN SUB LUMINANCE & CHROMINANCE C.B.A. (VEP03821A).
		VEP05149C	HEAD AMP C.B.A.	1	(NLA)
		VEP06731B	VR C.B.A.	1	(NLA) INCLUDING THE HEAD PHONE & MIC JACK C.B.A.(VEP00R22A).
		VEP00R22A	HEAD PHONE & MIC JACK C.B.A.	1	(NLA) INCLUDED IN VR C.B.A. (VEP06731B).
		VEP07622C	TIMER C.B.A.	1	(NLA) INCLUDING THE IR RECEIVER C.B.A. (VEP06552A).
		VEP06552A	IR RECEIVER C.B.A.	1	(NLA) INCLUDED IN TIMER C.B.A. (VEP07622C).
		VEP06537A	JOG SHUTTLE C.B.A.	1	(NLA)
		VEP01353N	POWER C.B.A.	1	<!> (NLA)
		VEX0117	CYLINDER DRIVE C.B.A.	1	(NLA)
		VEP00K88C	FE HEAD C.B.A.	1	(NLA)
		VEP00M86A	FG AMP C.B.A.	1	(NLA)
		VXA3825	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3578	PHOTO Tr.(S) C.B.A.	1	(NLA)
		-----	PHOTO Tr.(T) C.B.A.	1	
		VEP66151B	REMOTE CONTROLLER C.B.A.	1	(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP66077C	DIGITAL SCANNER C.B.A.	1	(NLA)
		XBA2C12TBO	FUSE	1	<!>
		XBA2C16TBO	FUSE	1	<!>
	■	VEP03820A	MAIN C.B.A.		<!> (NLA)
			CONNECTORS		
BP3002		VJS1259	CONNECTOR(FEMALE)	1	
BP3003		VJS1258	CONNECTOR(FEMALE)	1	
BP3008		VJP1260	CONNECTOR(MALE)	1	
			CAPACITORS		
C301		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C302-04		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C305		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C306		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C307		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C308		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C309		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C311		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C312		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C313		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C316		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C317		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C318		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C320		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C322		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C323		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C324		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C325		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C326		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C329		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C330		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C331		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C332		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C333		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C334		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C335		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C336		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C337		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C338,39		ECEA0JK220	E.CAPACITOR 6.3V 22U	2	
C341		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C342		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C344		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C345		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C346		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C348		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C349		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C707		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C708		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C715-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C723		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C727		ECUM1H080DCN	C.CAPACITOR CH 50V 80P	1	
C728		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C734		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUM1H030CCN	C.CAPACITOR CH 50V 3P	1	
C743		ECUM1H270RSN	C.CAPACITOR CH 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUM1H680JPN	C.CAPACITOR CH 50V 68P	1	
C746		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C748		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C775		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C781		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C782		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C790		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C801		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C802		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C803,04		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C805		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C806		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C807		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C808		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C810		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C811		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C812		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C813		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C814		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C815		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C816		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C817		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C819		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C821		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C823		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C824		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C825		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C826		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C827		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C828		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C832		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C833		ECRHA020D41	TRIMMER	1	
C834		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C835		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C851		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C852		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C853		ECEA1AFS470	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C856		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C859		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C1001		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C1003		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C1004		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1005		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C1006		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C1007,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C1009		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C1010		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C1011		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C1012		ECEA1HU470	E.CAPACITOR 50V 47U	1	
C1013		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1014		ECEA1VFE820	E.CAPACITOR 35V 82U	1	
C2001		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C2002		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2003		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2201		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2204		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2205		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2206		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2209		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2210		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C2211		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2212		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2213		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2214		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2215		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2216		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2217		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2218		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2219		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2220		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2221		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2222		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2223		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2224		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C2225		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C2226		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C2227,28		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C2229		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C2230		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C2231		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2232		ECEA1CKS470	E.CAPACITOR 16V 47U	1	
C2233-35		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2236		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2237-39		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2240		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2241		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2242		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C2243		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2244		ECSF1CE105	T.CAPACITOR 16V 1U	1	
C2245		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2246		ECEA1OM47	E.CAPACITOR 10V 47U	1	
C2247		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2248,49		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	2	
C2250		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C2251		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2262		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2263		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2264		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2265		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2266		ECEA0JKS470	E.CAPACITOR 6.3V 47U	1	
C2267,68		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	2	
C2269		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2270		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2271		ECQV1H184JZ	P.CAPACITOR 50V 0.18U	1	
C2272		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2273		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2274		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2311		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C2312,13		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	2	
C3001		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C3002,03		ECEA0JK470	E.CAPACITOR 6.3V 47U	2	
C3004-06		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3012		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3013		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C3014		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3015		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3016		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3018		ECEA1AKN470	E.CAPACITOR 10V 47U	1	
C3019		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3020		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3021		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3022		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3023		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3024		ECEA1AU471	E.CAPACITOR 10V 470U	1	
C3025		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3026		ECEA1AU471	E.CAPACITOR 10V 470U	1	
C3028		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3031		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3032,33		ECEA1CK101	E.CAPACITOR 16V 100U	2	
C3034		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C3035		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3036		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C3037		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3038		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3039,40		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C3041,42		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3043		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C3044		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3045		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3046		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3047		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3048		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C3049		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C3051		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C3052		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3301		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C3302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C3303		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3304		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3305		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C3306		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C3307		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3308,09		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3310,11		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C3312,13		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3314		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C3315		ECEA1HKS4R7	E.CAPACITOR 50V 4.7U	1	
C3316		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3317		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3318		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3319		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3320		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3321		ECEA1EKS4R7	E.CAPACITOR 25V 4.7U	1	
C3322		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C3323		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3324		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C3325		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3351-53		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C3354,55		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	2	
C3913		ECEA1CU331	E.CAPACITOR 16V 330U	1	
C3914		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3915		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3916-19		ECEA1CK220	E.CAPACITOR 16V 22U	4	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121J	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C4007		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H122KBN	C.CAPACITOR CH 50V 1200P	1	
C4015		ECEA16M10	E.CAPACITOR 16V 10U	1	
C4016		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4017		ECEA10M22	E.CAPACITOR 10V 22U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4026		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	1	
C4028		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4101		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4103		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4104		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4106		ECEA1APK470	E.CAPACITOR 10V 47U	1	
C4107		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4108		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C4110,11		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C4112		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C4114,15		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	2	
C4118		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4121		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C4122		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4123		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	1	
C4124		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4125		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	
C4126		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4127-30		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C4131		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C4133		ECUM1H331KBN	C.CAPACITOR CH 50V 330P	1	
C4139		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C4140		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C4201		ECQV1H333JZ	P.CAPACITOR 50V 0.033U	1	
C4202		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C4203		ECQB1H682JH	P.CAPACITOR 50V 6800P	1	
C4204		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C4205		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4501		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4502		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4503		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4504		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4505		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4506		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4507		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4508		ECEA1EPH4R7	E.CAPACITOR 25V 4.7U	1	
C4509		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4510		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4511		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4512		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4513,14		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	2	
C4515		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4516		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4517		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4518,19		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4520		VCEA1CAH100	E.CAPACITOR 16V 10U	1	
C4521		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4522		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4523		ECUM1H122JN	C.CAPACITOR CH 50V 1200P	1	
C4524		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4525		ECEA1CPZ220	E.CAPACITOR 16V 22U	1	
C4526		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4527		VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4528		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C4529		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4530		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C4531		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C4532		ECEA1CPZ471	E.CAPACITOR 16V 470U	1	
C4533		ECEA1CPZ221	E.CAPACITOR 16V 220U	1	
C4534		VCEA1AAH101	E.CAPACITOR 10V 100U	1	
C4535		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4537		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C4538		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4539		ECQV1H274JZ	P.CAPACITOR 50V 0.27U	1	
C4540-42		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C4543		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4544		ECQB1H222JZ	P.CAPACITOR 50V 2200P	1	
C4545		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	1	
C4551		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4552		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4553		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4554		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4555		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4556		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4557		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4558		ECEA1EPH4R7	E.CAPACITOR 25V 4.7U	1	
C4559		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4560		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4561		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4562		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
C4563,64		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	2	
C4565		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4566		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4567		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4568,69		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C4570		VCEA1CAH100	E.CAPACITOR 16V 10U	1	
C4572		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4573		ECUM1H122JN	C.CAPACITOR CH 50V 1200P	1	
C4574,75		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C4576		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4903,04		ECUM1H101KN	C.CAPACITOR CH 50V 100P	2	
C4907,08		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	2	
C4909,10		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4911,12		ECUM1H101KN	C.CAPACITOR CH 50V 100P	2	
C4913,14		ECQB1H682JH	P.CAPACITOR 50V 6800P	2	
C4915,16		ECQB1H183JH	P.CAPACITOR 50V 0.018U	2	
C4918		VCEA1HAC3R3	E.CAPACITOR 50V 3.3U	1	
C4920,21		VCEA1CAD100	E.CAPACITOR 16V 10U	2	
C4922		VCEA1AAC221	E.CAPACITOR 10V 220U	1	
C4923		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4924-26		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C4927		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4928		VCEA1CAC101	E.CAPACITOR 16V 100U	1	
C4929		VCEA1VAC470	E.CAPACITOR 35V 47U	1	
C4930,31		VCEA1HAC010	E.CAPACITOR 50V 1U	2	
C4932		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C4933		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4936		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C5001		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5002		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C5003		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5004		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C5005		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5006		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C5007		ECUM1H391JN	C.CAPACITOR CH 50V 390P	1	
C5008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5009		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C5010		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C5011		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5012		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C5013		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C5014		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C5015,16		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C5017		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C5018-20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C5021		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C5022		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5023,24		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C5025		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5026		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C5027,28		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C5030		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C5031		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5032		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C5033		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5035		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C5036		ECUM1H271KBN	C.CAPACITOR CH 50V 270P	1	
C5037		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5038		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C5039		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C5040		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C5041		ECUM1H080DCN	C.CAPACITOR CH 50V 80P	1	
C5042		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C6001		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6002		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6003		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6004		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6005		ECUM1H151KBN	C.CAPACITOR CH 50V 150P	1	
C6006		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C6007		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6008		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6010,11		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C6012		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C6013,14		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6015		ECUM1H102ZFN	C.CAPACITOR CH 50V 1000P	1	
C6016		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6017		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6018,19		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6020-23		ECUM1H271KBN	C.CAPACITOR CH 50V 270P	4	
C6024-28		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	5	
C6029		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C6030		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6033		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C6034		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C6037,38		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6039		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6041		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6043		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6044		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C6045		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6046		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C6047		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C7302		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7303		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7304		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7305		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C7306		ECQB1H102KZ	P.CAPACITOR 50V 1000P	1	
C7307		ECQB1H822KZ	P.CAPACITOR 50V 8200P	1	
C7308		ECQB1H102KZ	P.CAPACITOR 50V 1000P	1	
C7309		ECQB1H152JH	P.CAPACITOR 50V 1500P	1	
C7310		ECEA16M10	E.CAPACITOR 16V 10U	1	
C7311		ECEA50MR47	E.CAPACITOR 50V 0.47U	1	
C7312		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7313		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7314		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7315		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7316		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7317		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C7318		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7319		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C7320,21		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C7322		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C7323,24		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	2	
C7325		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C7331		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C7332,33		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C7334		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7335		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C7336		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7337		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C7338		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C7339		ECQB1H103KZ	P.CAPACITOR 50V 0.01U	1	
C7340		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7341		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7342		ECQB1H183JZ3	F.CAPACITOR 50V 0.018U	1	
C7343		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7344		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C7345		ECQB1H103KZ	P.CAPACITOR 50V 0.01U	1	
C7346		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7347		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7348		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H332JH	P.CAPACITOR 50V 0.27U	1	
C7668		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7685		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C7801		ECUM1H102JN	C.CAPACITOR CH 50V 1000P	1	
C7802		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C7816		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7852		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C7853,54		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7860		ECEA0JK101	E.CAPACITOR 6.3V 100U	1	
C8301,02		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8303		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C8304,05		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8306		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C8307,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8309		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C8310		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8311		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C8312		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C8313		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8314		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	1	
C8315		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
			DIODES		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D710		MA3100L	DIODE	1	
D773		11ES1	DIODE	1	
D801		MA151K	DIODE	1	
D802		MA151WA	DIODE	1	
D803		MA151A	DIODE	1	
D1001		AK04	DIODE	1	
D1003,04		MA723	DIODE	2	
D1005		MA165	DIODE	1	
D1010,11		MA165	DIODE	2	
D1015		1SS254	DIODE	1	
D1020		1SS254	DIODE	1	
D2201-04		MA165	DIODE	4	
D2205		MA4056M	DIODE	1	
D2212		MA165	DIODE	1	
D2216,17		MA165	DIODE	2	
D2220		MA723	DIODE	1	
D2306,07		MA165	DIODE	2	
D3001-03		MA165	DIODE	3	
D3004		MA723	DIODE	1	
D3006		MA165	DIODE	1	
D3015		1SS254	DIODE	1	
D3301		MA151K	DIODE	1	
D3302		MA3091M	DIODE	1	
D3306		MA151K	DIODE	1	
D3901,02		MA165	DIODE	2	
D4003		MA165	DIODE	1	
D4101		MA165	DIODE	1	
D4104		MA165	DIODE	1	
D4108		MA4047M	DIODE	1	
D4202		MA165	DIODE	1	
D5001		MA151K	DIODE	1	
D6001		MA165	DIODE	1	
D6003-05		MA165	DIODE	3	
D6007-16		MA165	DIODE	10	
D6017		MA4091M	DIODE	1	
D6019-22		MA165	DIODE	4	
D6025		AK04	DIODE	1	
D6026		MA165	DIODE	1	
D6027		MA4075M	DIODE	1	
D6029		MA154WK	DIODE	1	
D6032		MA165	DIODE	1	
D6033		MA723	DIODE	1	
D6035-38		MA156	DIODE	4	
D7302		MA151A	DIODE	1	
D7303		MA28WA	DIODE	1	
D7672,73		MA3150H	DIODE	2	
D7851		MA151K	DIODE	1	
D8301		MA151K	DIODE	1	
D8303		MA151WK	DIODE	1	
			DELAY LINES		
DL801		VLD0147	DELAY LINE	1	
DL8301		VLD0089	DELAY LINE	1	
			FILTERS		
FL301		ELB4L121	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0639	FILTER	1	
FL304		ELB4M022	FILTER	1	
FL801		VLF0299	FILTER	1	
FL851		VLF0143	FILTER	1	
FL3301		VLF0413	FILTER	1	
FL3302		ELB4R049	FILTER	1	
FL4502		VLF0406	FILTER	1	
FL4503		VLF0697	FILTER	1	
FL5001		ELB5A066	FILTER	1	
FL5002		ELB4K114	FILTER	1	
FL5003		ELB4R031	FILTER	1	
FL5004		ELB4K114	FILTER	1	
			INTEGRATED CIRCUITS		
IC301		VEFH07C	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC302		M52055FP	IC	1	
IC303		VEFH05BT	IC	1	
IC304		NJM2233BMA	IC	1	
IC701		M51366SP	IC	1	
IC801		VCR0284	IC	1	
IC851		BA7025L	IC	1	
IC2201		AN3726K	IC	1	
IC2202		MN4013BS	IC	1	
IC2203		MN1280R	IC	1	
IC2204		UPD4052BG	IC	1	
IC2205		MN6742VCSK	IC	1	
IC2206		XRA6435S	IC	1	
IC2303		UPC393G2	IC	1	
IC3001		M52055FP	IC	1	
IC3002		VCR0281	IC	1	
IC3301		AN3495K	IC	1	
IC3302		MSM6871RS	IC	1	
IC3307		BA7004	IC	1	
IC3901		M51292FP	IC	1	
IC4001		BA7766AS	IC	1	
IC4101		RC4560DD	IC	1	
IC4102		AN3912	IC	1	
IC4501		BA7705K1	IC	1	
IC4502		UPC78L05J	IC	1	
IC4901		M51293FP	IC	1	
IC4902		UPC78L06J	IC	1	
IC4903		AN79N06	IC	1	
IC5001		M52054SP	IC	1	
IC5002		AN6308S	IC	1	
IC6001		MN188166VDU	IC	1	
IC6002		MN1280R	IC	1	
IC6003		MC14011BF	IC	1	
IC6004		LM339N	IC	1	
IC6005		AN6609N	IC	1	
IC6006		LM393PS	IC	1	
IC6007		MC14519BF	IC	1	
IC7301		TDA3803A	IC	1	
IC7302,03		AN5215	IC	2	
IC7801		SAA4700	IC	1	
IC7851		MN158413VSSY	IC	1	
IC7852		MN1280S	IC	1	
			CONNECTORS		
J701		VJR0231	PACK PIN	1	
J702,03		VJR0406	PACK PIN	2	
J704		VJR0231	PACK PIN	1	
J3901		VJS1470	CONNECTOR(FEMALE)	1	
J7301,02		VJR0189	PACK PIN	2	
			RESISTOR		
K3		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
			PACK PIN		
KR851		VJR0163	PACK PIN	1	
			COILS		
L302		VLQEL06F101K	COIL 100UH	1	
L303		VLQEL05F680K	COIL 68UH	1	
L304		VLQEL05F560K	COIL 56UH	1	
L305-08		VLQEL05F101K	COIL 100UH	4	
L310		VLQEL05F220K	COIL 22UH	1	
L701,02		ELESP680KA	COIL 68UH	2	
L711		ELQTR68XB	COIL 0.68UH	1	
L712		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L716		ELESP560KA	COIL 56H	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L781		ELESP680KA	COIL 68UH	1	
L801-03		VLQEL05F101K	COIL 100UH	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F150K	COIL 15UH	1	
L809,10		VLQEL05F681K	COIL 680UH	2	
L811		VLQEL05F331K	COIL 330UH	1	
L812		VLQEL05F470K	COIL 47UH	1	
L814		VLQEL05F330J	COIL 33UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L1001,02		ELESP101KA	COIL 100UH	2	
L1010		VLQEL05F102K	COIL 1000UH	1	
L2002		VLP0099	COIL	1	
L2201-03		VLQEL05F101K	COIL 100UH	3	
L2204		VLQEL05F102K	COIL 1000UH	1	
L3005		VLQEL05F151K	COIL 150UH	1	
L3006		VLQEL05F820K	COIL 82UH	1	
L3007,08		VLQEL05F101K	COIL 100UH	2	
L3009		VLQ0398	COIL	1	
L3010		VLQEL05F681K	COIL 680UH	1	
L3301-03		VLQEL05F101K	COIL 100UH	3	
L3309		VLQEL05F101K	COIL 100UH	1	
L3312		VLQEL05F101K	COIL 100UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L4003		ELESP101KA	COIL 100UH	1	
L4102		VLQEL05F1R0K	COIL 1UH	1	
L4104		VLQEL05F101K	COIL 100UH	1	
L4105		VLP0085	FILTER	1	
L4201		VLQEL07F153J	COIL 15mH	1	
L4501,02		ELESP101KA	COIL 100UH	2	
L4503		VLQ0422	COIL	1	
L4901-04		VLQEL05F102K	COIL 1000UH	4	
L4905,06		VLQEL05F101K	COIL 100UH	2	
L4907		VLQ0407102K	COIL 1000UH	1	
L5001		VLQEL05F101K	COIL 100UH	1	
L5002		VLQEL05F181K	COIL 180UH	1	
L5003		VLQEL05F270K	COIL 27UH	1	
L5004,05		VLQEL05F5R6K	COIL 5.6UH	2	
L5006		VLQEL05F120K	COIL 12UH	1	
L5007		VLQEL05F101K	COIL 100UH	1	
L5008,09		VLQEL05F100K	COIL 10UH	2	
L5010		VLQEL05F220K	COIL 22UH	1	
L5012,13		VLQEL05F101K	COIL 100UH	2	
L7301		ELESP102KA	COIL 1000UH	1	
L7302		ELESP680KA	COIL 68UH	1	
L7304		VTQ0014	COIL	1	
L8301		VLQEL05F101K	COIL 100UH	1	
L8302,03		VLQEL05F150K	COIL 15UH	2	
L8304		VLQEL05F270K	COIL 27UH	1	
L8305		VLQEL05F151K	COIL 150UH	1	
			CONNECTORS		
P001		VJS1738	CONNECTOR	1	
P501		VJS1237T	CONNECTOR(FEMALE)	1	
P551		VJS1236T	CONNECTOR(FEMALE)	1	
P1001		VJS2571A014	CONNECTOR	1	
P1502		VJS1141	CONNECTOR(FEMALE)	1	
P2001		VJP1242T	CONNECTOR(MALE) 2P	1	
P2002		VJF0093	CONNECTOR	1	
P2201		VJP1245T	CONNECTOR(MALE) 5P	1	
P2201		VJS1738	CONNECTOR	1	
P2202		VJS1666	CONNECTOR(FEMALE)	1	
P2203		VJP1148	CONNECTOR	1	
P2203		VJS1141T	CONNECTOR(FEMALE)	1	
P3001		VJP1237T	CONNECTOR(MALE) 10P	1	
P3001		VJS1237T	CONNECTOR(FEMALE)	1	
P3002		VJP1235T	CONNECTOR(MALE) 8P	1	
P3003		VJP1234T	CONNECTOR(MALE) 7P	1	
P3201		VJP1244T	CONNECTOR(MALE) 4P	1	
P3201		VJS1231T	CONNECTOR(FEMALE)	1	
P3301		VJS2651B008Z	CONNECTOR	1	
P3302		VJS2651B007Z	CONNECTOR	1	
P3502		VJS1236T	CONNECTOR(FEMALE)	1	
P3503		VJS1235T	CONNECTOR(FEMALE)	1	
P3508		VJS1234T	CONNECTOR(FEMALE)	1	
P3509		VJS1231T	CONNECTOR(FEMALE)	1	
P4001		VJP1231T	CONNECTOR(MALE) 4P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P4002		VJP1236T	CONNECTOR(MALE) 9P	1	
P4002		VJS1236T	CONNECTOR(FEMALE)	1	
P4003		VJP1236T	CONNECTOR(MALE) 9P	1	
P4003		VJS1236T	CONNECTOR(FEMALE)	1	
P4004		VJP1229T	CONNECTOR(MALE) 2P	1	
P4004		VJS1229T	CONNECTOR(FEMALE)	1	
P4901		VJP1242T	CONNECTOR(MALE) 2P	1	
P4901		VJS1229	CONNECTOR	1	
P6001		VJS1663	CONNECTOR(FEMALE)	1	
P6002		VJS2571A004	CONNECTOR(FEMALE)	1	
P6003		VJP1393T	CONNECTOR(MALE) 13P	1	
P6003		VJS2381	CONNECTOR(FEMALE)	1	
P6501		VJS1236T	CONNECTOR(FEMALE)	1	
P6503		VJS2381	CONNECTOR(FEMALE)	1	
P6504		VJS1230	CONNECTOR	1	
P7401		VJS2571A013	CONNECTOR(FEMALE)	1	
P7402,03		VJS2571A011	CONNECTOR(FEMALE)	2	
P7404		VJS2571A008	CONNECTOR(FEMALE)	1	
			PACK PINS		
PK1		VJR0189	PACK PIN	1	
PK2201		VJP1865	CONNECTOR(MALE)	1	
PK2201		VJS1865	CONNECTOR(FEMALE)	1	
PK2202		VJP1865	CONNECTOR(MALE)	1	
PK2202		VJS1865	CONNECTOR(FEMALE)	1	
PK2203		VJP1861	CONNECTOR(MALE)	1	
PK2203		VJS1861	CONNECTOR(FEMALE)	1	
PK2204		VJP1859	CONNECTOR(MALE)	1	
PK2204		VJS1859	CONNECTOR(FEMALE)	1	
PK3011		VJP1862	CONNECTOR(MALE)	1	
PK3011		VJS1862	CONNECTOR(FEMALE)	1	
PK3012		VJP1862	CONNECTOR(MALE)	1	
PK3012		VJS1862	CONNECTOR(FEMALE)	1	
PK3013		VJP1861	CONNECTOR(MALE)	1	
PK3013		VJS1861	CONNECTOR(FEMALE)	1	
PK3021		VJP1858	CONNECTOR(MALE)	1	
PK3021		VJS1858	CONNECTOR(FEMALE)	1	
PK3022		VJP1865	CONNECTOR(MALE)	1	
PK3022		VJS1865	CONNECTOR(FEMALE)	1	
PK4201		VJR0231	PACK PIN	1	
PK4501		VJR0477	PACK PIN	1	
PK4502,03		VJR0290	PACK PIN	2	
			TRANSISTORS		
Q301		2SD601	TRANSISTOR CHIP	1	
Q302		2SC2295	TRANSISTOR	1	
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q712		2SD638	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR CHIP	1	(S,T)
Q801		2SB709	TRANSISTOR CHIP	1	
Q804		2SD601	TRANSISTOR CHIP	1	
Q1001		2SC4024LF	TRANSISTOR	1	
Q1002		2SD601	TRANSISTOR CHIP	1	
Q1003		2SD601A	TRANSISTOR	1	
Q1004		2SD1330	TRANSISTOR	1	
Q1005		2SD1330	TRANSISTOR	1	(S,T)
Q1007		MSD601	TRANSISTOR	1	
Q1010		MSD601	TRANSISTOR	1	
Q2201		2SD601	TRANSISTOR CHIP	1	
Q2202		2SC2295	TRANSISTOR	1	
Q2203		2SD602	TRANSISTOR CHIP	1	
Q2204-09		2SD601	TRANSISTOR CHIP	6	
Q2301		2SD601	TRANSISTOR CHIP	1	
Q3001		2SD602	TRANSISTOR	1	
Q3003		2SC2295	TRANSISTOR	1	
Q3004		2SB709	TRANSISTOR CHIP	1	
Q3005-07		2SD601	TRANSISTOR CHIP	3	
Q3008		2SC2295	TRANSISTOR	1	
Q3009		2SB709	TRANSISTOR	1	(S)
Q3301-04		2SC2295	TRANSISTOR	4	
Q3310		2SC2295	TRANSISTOR	1	
Q4001		2SD639	TRANSISTOR	1	(R)
Q4103		2SD1328	TRANSISTOR CHIP	1	
Q4201-05		2SD1306	TRANSISTOR	5	
Q4501		MSD601	TRANSISTOR	1	
Q4502,03		2SD1757K	TRANSISTOR	2	
Q4504		MSB709	TRANSISTOR	1	
Q5001		2SC2295	TRANSISTOR	1	
Q5002,03		2SD601	TRANSISTOR CHIP	2	
Q5004,05		2SC2295	TRANSISTOR	2	
Q5006		2SB709	TRANSISTOR CHIP	1	
Q5007-13		2SC2295	TRANSISTOR	7	
Q5014		2SB709	TRANSISTOR CHIP	1	
Q5015		2SC2295	TRANSISTOR	1	
Q6002		2SB790	TRANSISTOR	1	(R,S)
Q6003		2SB709	TRANSISTOR CHIP	1	
Q6004		2SB790	TRANSISTOR	1	(R,S)
Q6006		2SD893	TRANSISTOR	1	
Q6007		2SD973	TRANSISTOR	1	
Q6008		2SD636	TRANSISTOR	1	
Q6011		2SD1856	TRANSISTOR	1	
Q6012		2SD636	TRANSISTOR	1	
Q6013-15		2SD601	TRANSISTOR CHIP	3	
Q6017		2SD601	TRANSISTOR CHIP	1	
Q7301		2SD601	TRANSISTOR	1	(S,T)
Q7302		2SD1328	TRANSISTOR	1	(S)
Q7303		2SD1328	TRANSISTOR CHIP	1	(S,T)
Q7304,05		2SD601	TRANSISTOR CHIP	2	
Q7306		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q7307		2SD1328	TRANSISTOR	1	(S)
Q8301		2SD601	TRANSISTOR CHIP	1	
Q8302		2SC2295	TRANSISTOR	1	
			COMBINATION PARTS		
QR301-04		UN2213	TRANSISTOR-RESISTOR	4	
QR305		UN2110	TRANSISTOR-RESISTOR	1	
QR310,11		UN2213	TRANSISTOR-RESISTOR	2	
QR701,02		MRN1404	TRANSISTOR-RESISTOR	2	
QR711,12		MRN1403	TRANSISTOR-RESISTOR	2	
QR801-05		UN2213	TRANSISTOR-RESISTOR	5	
QR1001		UN2211	TRANSISTOR-RESISTOR	1	
QR1002		UN2213	TRANSISTOR-RESISTOR	1	
QR1006		UN2211	TRANSISTOR-RESISTOR	1	
QR1010		UN6112	TRANSISTOR-RESISTOR	1	
QR1011		UN6113	TRANSISTOR-RESISTOR	1	
QR1012		MRN2404	TRANSISTOR-RESISTOR	1	
QR2001		UN2211	TRANSISTOR-RESISTOR	1	
QR2201,02		UN2117	TRANSISTOR-RESISTOR	2	
QR2206-09		UN2213	TRANSISTOR-RESISTOR	4	
QR2210		UN2212	TRANSISTOR-RESISTOR	1	
QR2213		UN2112	TRANSISTOR-RESISTOR	1	
QR2214		UN2213	TRANSISTOR-RESISTOR	1	
QR2215		UN2113	TRANSISTOR-RESISTOR	1	
QR2301		UN2213	TRANSISTOR-RESISTOR	1	
QR2302		UN2113	TRANSISTOR-RESISTOR	1	
QR2303-06		UN2213	TRANSISTOR-RESISTOR	4	
QR2307		UN2113	TRANSISTOR-RESISTOR	1	
QR3001,02		UN2213	TRANSISTOR-RESISTOR	2	
QR3003,04		UN2111	TRANSISTOR-RESISTOR	2	
QR3005		UN2213	TRANSISTOR-RESISTOR	1	
QR3006		UN2212	TRANSISTOR-RESISTOR	1	
QR3007		UN2214	TRANSISTOR-RESISTOR	1	
QR3008		UN2111	TRANSISTOR-RESISTOR	1	
QR3009		UN2213	TRANSISTOR-RESISTOR	1	
QR3012		DTC363EK	TRANSISTOR-RESISTOR	1	
QR3013		UN211D	TRANSISTOR-RESISTOR	1	
QR3014		UN2211	TRANSISTOR-RESISTOR	1	
QR3020		MRN1404	TRANSISTOR-RESISTOR	1	
QR3301-03		UN2213	TRANSISTOR-RESISTOR	3	
QR3901		UN2213	TRANSISTOR-RESISTOR	1	
QR3902		UN2113	TRANSISTOR-RESISTOR	1	
QR4001		UN2213	TRANSISTOR-RESISTOR	1	
QR4101		UN2213	TRANSISTOR-RESISTOR	1	
QR4102		UN2113	TRANSISTOR-RESISTOR	1	
QR4103,04		UN2112	TRANSISTOR-RESISTOR	2	
QR4105		UN2213	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR4501,02		MRN1404	TRANSISTOR-RESISTOR	2	
QR5001-04		DTC363EK	TRANSISTOR-RESISTOR	4	
QR5006		UN2213	TRANSISTOR-RESISTOR	1	
QR6003,04		UN2213	TRANSISTOR-RESISTOR	2	
QR6005-09		UN2211	TRANSISTOR-RESISTOR	5	
QR6010		UN2213	TRANSISTOR-RESISTOR	1	
QR6011		UN2211	TRANSISTOR-RESISTOR	1	
QR6013		UN2111	TRANSISTOR-RESISTOR	1	
QR6014		UN2113	TRANSISTOR-RESISTOR	1	
QR6015-17		UN2213	TRANSISTOR-RESISTOR	3	
QR6018		UN2113	TRANSISTOR-RESISTOR	1	
QR6019,20		UN2213	TRANSISTOR-RESISTOR	2	
QR6021		UN2113	TRANSISTOR-RESISTOR	1	
QR6022		UN2111	TRANSISTOR-RESISTOR	1	
QR6024		UN2113	TRANSISTOR-RESISTOR	1	
QR6025		UN2212	TRANSISTOR-RESISTOR	1	
QR6027		UN2213	TRANSISTOR-RESISTOR	1	
QR6028-31		UN2212	TRANSISTOR-RESISTOR	4	
QR7301,02		UN2214	TRANSISTOR-RESISTOR	2	
QR7312-14		UN2211	TRANSISTOR-RESISTOR	3	
QR7851		UN2211	TRANSISTOR-RESISTOR	1	
QR7852		UN2213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R302		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R306		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R307		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R308		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R309		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R310		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R312		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R313		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R314		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R315		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R316		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R317		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R318,19		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R320,21		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R322		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R323		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R324		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R325		ERJ6GEYJ911	M.RESISTOR CH 1/10W 910	1	
R326		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R327		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R328		ERJ6GEYJ273	M.RESISTOR CH 1/10W 270K	1	
R330		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R331		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R332		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R337		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R338		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R339		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R340		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R341		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R345		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R712		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R713		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	
R715		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R716		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R717		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R718		ERJ6GEYJ754	M.RESISTOR CH 1/10W 750K	1	
R719,20		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R721		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R722		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R723		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R725		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R726		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R727		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R737		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R738		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R740		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R741		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R743		ERJ6GEYJ470	M.RESISTOR CH 1/10W 47	1	
R744		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R745		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R750		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R759		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R772		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R773		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R774		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R781		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R782		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R801		ERJ6GEYJ273	M.RESISTOR CH 1/10W 270K	1	
R802		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R803		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R808		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R809,10		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	2	
R811		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R812		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R813		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R814		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R815		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R816		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R817		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R818		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R819		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R820		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R821		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R825		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R826		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R827		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R840		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R851		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R852		ERJ6GEYJ390	M.RESISTOR CH 1/10W 39	1	
R853		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R854		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R855		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R856		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R1002		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R1003		ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R1004		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R1005		ERDS1TJ822	C.RESISTOR 1/2W 8.2K	1	
R1006		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R1007		ERJ6GMYG912	M.RESISTOR CH 1/10W 9.1K	1	
R1008		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R1009		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R1010		ERJ6GMYG682	M.RESISTOR CH 1/10W 6.8K	1	
R1011		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R1012		ERG2ANJ681	M.RESISTOR 2W 680	1	
R1013		ERG2ANJ821	M.RESISTOR 2W 820	1	
R1014		ERX1SJ1R2	M.RESISTOR 1W 1.2	1	
R1020		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R1021-23		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R1024		ERDS1TJ821	C.RESISTOR 1/2W 82K	1	
R1025		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2001		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R2002		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R2005		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R2006		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2007		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2201		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R2202		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R2203		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R2204		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2205		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R2206		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2207		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R2208		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2209		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R2210		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R2211-13		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	3	
R2214		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2215,16		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2217		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2218		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R2219		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2220		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2221		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R2222		ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R2223,24		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R2225		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R2226		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R2227		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2228		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R2229-33		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	5	
R2236		ERJ6GMYG362	M.RESISTOR CH 1/10W 3.6K	1	
R2237		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R2238,39		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2240		ERX12SJR47	M.RESISTOR 1/2W 0.47	1	
R2241,42		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2243		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2244		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2245		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R2246		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2247		ERJ6GMYG394	M.RESISTOR CH 1/10W 390K	1	
R2248		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2249		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2250		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2251		ERJ6GMYJ151	M.RESISTOR CH 1/10W 150	1	
R2252		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2253,54		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R2255		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R2256		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2257		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R2258		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R2259		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R2260		ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2261		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R2266		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2288		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R2289		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2290		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R2292		ERJ6GMYG392	M.RESISTOR CH 1/10W 3.9K	1	
R2301		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2304		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2323		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R2324-26		ERJ6GMYG223	M.RESISTOR CH 1/10W 22K	3	
R2327		ERJ6GMYG273	M.RESISTOR CH 1/10W 27K	1	
R2328		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2329		ERJ6GMYG823	M.RESISTOR CH 1/10W 82K	1	
R2330,31		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R2332,33		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	2	
R2334		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R2335		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R2336		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R3001		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3002		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3003		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R3004		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R3011		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3012		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R3013		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3014		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3015		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3017		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3018-20		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R3025,26		ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	2	
R3029		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3030		ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	1	
R3031		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3032		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R3033,34		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R3035		ERJ6GMYG202	M.RESISTOR CH 1/10W 2K	1	
R3036		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3037-39		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	3	
R3040		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R3041		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3042		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3043		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3044,45		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	2	
R3046-48		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	3	
R3049		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3050		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R3051,52		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R3053		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3054,55		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R3056		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3057		ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3058		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3059		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R3060		ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3301		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3302		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3303		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3304		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3305		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3306		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R3307		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3308		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3309		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3310		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3311		ERJ6GEYJ273	M.RESISTOR CH 1/10W 270K	1	
R3312		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3313		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R3314		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3315		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3316		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3317		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3318		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3319		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3320		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3321		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3344		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3345		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R3346,47		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R3348		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3349,50		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R3901,02		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	2	
R3908		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3909-18		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	10	
R3919,20		ERJ6GEYJ333	M.RESISTOR CH 1/10W 330K	2	
R3921		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3922		ERJ6GEYJ750	M.RESISTOR CH 1/10W 75	1	
R3923		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3924		ERD2FCG220	C.RESISTOR 2W 22	1	
R3925		ERJ6GEYJ390	M.RESISTOR CH 1/10W 39	1	
R4001		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R4002		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4003		ERJ6GMYJ203	M.RESISTOR CH 1/10W 20K	1	
R4004,05		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R4007		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4008		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4009		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4010		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4012		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4013		ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4014		ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R4015		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4016		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4017		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R4018		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4020		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4021		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4022		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4023		ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4024,25		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4026		ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4027		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R4030		ERJ6GMYJ512	M.RESISTOR CH 1/10W 5.1K	1	
R4031		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4035		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R4044		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4101		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4104		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4105,06		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R4107		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4108		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4109		ERJ6GMZOROO	M.RESISTOR CH 1/10W 0	1	
R4110		EROS2CKG1003	M.RESISTOR 1/4W 100K	1	
R4111		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4112		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4113,14		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	2	
R4115		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4116		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R4117		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4118		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R4123		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4201		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R4202		ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	
R4203		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4204		ERJ6GEYJ121	M.RESISTOR CH 1/10W 120	1	
R4205		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4206		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R4207		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4208-13		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	6	
R4501		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4502		ERJ6GMYG681	M.RESISTOR CH 1/10W 680	1	
R4503		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4504		VREO034E112	M.RESISTOR CH 1/10W 1.1K	1	
R4505		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4506		ERJ6GMYG183	M.RESISTOR CH 1/10W 18K	1	
R4507		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R4508		ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	1	
R4511		ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R4512		VREO034E912	M.RESISTOR CH 1/10W 9.1K	1	
R4513		VREO034E272	M.RESISTOR CH 1/10W 2.7K	1	
R4514		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4515		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4516		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R4517		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4518		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4519		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4520		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R4521		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4522		ERJ6GMYJ225	M.RESISTOR CH 1/10W 2.2M	1	
R4523		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4525,26		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R4527		VREO034E223	M.RESISTOR CH 1/10W 22K	1	
R4528		VREO034E393	M.RESISTOR CH 1/10W 39K	1	
R4529		ERJ6GMYG163	M.RESISTOR CH 1/10W 16K	1	
R4530		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R4533		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4534		VREO034E152	M.RESISTOR CH 1/10W 1.5K	1	
R4535		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4536		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4539		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4540		ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4541		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R4551		ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R4552		ERJ6GMYG681	M.RESISTOR CH 1/10W 680	1	
R4553		ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R4554		VREO034E112	M.RESISTOR CH 1/10W 1.1K	1	
R4555		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4556		ERJ6GMYG183	M.RESISTOR CH 1/10W 18K	1	
R4557		ERJ6GMYG562	M.RESISTOR CH 1/10W 5.6K	1	
R4558		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R4561		ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R4562		VREO034E113	M.RESISTOR CH 1/10W 11K	1	
R4563		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4564		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R4565		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R4566		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4567		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R4568		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R4569		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R4573		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R4574		ERJ6GMYJ680	M.RESISTOR CH 1/10W 68	1	
R4576		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4577		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R4578		VREO034E113	M.RESISTOR CH 1/10W 11K	1	
R4902,03		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R4908,09		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	2	
R4910,11		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R4912,13		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	2	
R4916,17		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R4924		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R4925		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R4926		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R4927		ERJ6GEYG163	M.RESISTOR CH 1/10W 16K	1	
R4928		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R4929,30		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R4931		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R4932		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R4933		ERJ6GEYG163	M.RESISTOR CH 1/10W 16K	1	
R4934		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R4935		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R4936		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R4937		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R4938		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R4939		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4940		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R4941		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4943-46		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	4	
R5001		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R5002		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R5003-05		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	3	
R5006		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R5007		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R5008		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5009		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R5010		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R5011		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R5012-14		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	3	
R5015		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R5016		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5017		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R5018		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R5019		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R5020		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R5021		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R5022		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R5023		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R5024		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R5025		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R5026		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R5027		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R5028		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R5029		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R5030		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R5031		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R5033-35		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R5036,37		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	2	
R5038		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R5039		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R5040		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5041		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R5042		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R5043		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R5044		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R5045		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R5046		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R5047,48		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R5049		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R5050		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5051		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R5052		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5053		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R5054		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R5055,56		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R5057		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R5058		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R6001		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6005		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6006,07		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R6008		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6009		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6010,11		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R6016		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6017		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6018		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6019		ERJ6GMYJ121	M.RESISTOR CH 1/10W 120	1	
R6020		ERG2SJ150	M.RESISTOR 2W 15	1	
R6021		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6023		ERD2FCVG220	C.RESISTOR 2W 22	1	
R6028		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6029		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6030		ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R6031		ERJ6GMYG242	M.RESISTOR CH 1/10W 2.4K	1	
R6032		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R6033		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6034		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6035		ERSF30JR90	M.RESISTOR 0.9	1	
R6036		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6038		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6039,40		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	2	
R6042		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6043,44		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
R6045,46		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R6047		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6048-50		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	3	
R6051,52		ERJ6GMYJ564	M.RESISTOR CH 1/10W 560K	2	
R6054		ERJ6GMYK395	M.RESISTOR CH 1/10W 3.9M	1	
R6055		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6056		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R6057		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R6058		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6059		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R6060		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6061		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6062,63		ERJ6GMYJ564	M.RESISTOR CH 1/10W 560K	2	
R6064-66		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	3	
R6067		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R6068		ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R6069		ERJ6GMYK395	M.RESISTOR CH 1/10W 3.9M	1	
R6071		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6072		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6073-75		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	3	
R6076		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6077,78		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R6079		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6080		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6081,82		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6083		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R6084		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6085		ERJ6GMYJ184	M.RESISTOR CH 1/10W 180K	1	
R6087		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6088		ERJ6GMYJ184	M.RESISTOR CH 1/10W 180K	1	
R6089		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6090		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6091		ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R6092		ERJ6GMYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R6093		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R6094-98		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	5	
R6101		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R6102		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6105		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6106		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6107,08		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	2	
R6109		ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R6110		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6111		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6112		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6113		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R6114		ERJ6GMYJ124	M.RESISTOR CH 1/10W 120K	1	
R6115		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6119-22		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	4	
R6123		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6128,29		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6130,31		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R6132		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6133		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6136,37		ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R6138		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7302		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7303		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R7304		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7305		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R7306		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R7307		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R7308		ERJ6GEYJ273	M.RESISTOR CH 1/10W 270K	1	
R7309		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7310		ERJ6GEYJ474	M.RESISTOR CH 1/10W 470K	1	
R7311		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7312		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R7313		ERJ6GEYJ824	M.RESISTOR CH 1/10W 820K	1	
R7314,15		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	2	
R7316		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R7317		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R7318		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R7321,22		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R7323		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7324		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R7325		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R7329		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7330		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7331		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7333		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R7334-37		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	4	
R7338		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R7339		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R7340		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R7341		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R7342		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7343,44		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R7345		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R7346		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7347		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R7348		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R7349		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7350		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R7351		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7656		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7676		ERG1SJ152	M.RESISTOR 1W 1.5K	1	
R7801		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R7802		ERJ6GEYJ753	M.RESISTOR CH 1/10W 75K	1	
R7803,04		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R7805		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R7806		ERJ6GEYG362	M.RESISTOR CH 1/10W 3.6K	1	
R7807		ERJ6GEYJ474	M.RESISTOR CH 1/10W 470K	1	
R7851		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7852		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7860		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R8301		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R8302		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8303,04		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R8305,06		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R8307		ERJ6GEYJ333	M.RESISTOR CH 1/10W 330K	1	
R8308		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R8309		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8310		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R8311		ERJ6GEYJ273	M.RESISTOR CH 1/10W 270K	1	
R8312		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8313		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8314		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R8315,16		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
			SWITCHES		
SW3901		VSS0228	SWITCH	1	
SW3902		VSS0196	SWITCH	1	
			TRANSFORMERS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
T703		EIV5EC013A	TRANSFORMER	1	
T704		EIV5EC006A1	TRANSFORMER	1	
T710		EULBEF023	TRANSFORMER	1	
T851		ELM7Q207A	TRANSFORMER	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
T7301		EIR7QG001B	TRANSFORMER	1	
T7302,03		EIL7QH012Q	TRANSFORMER	2	
T7304		EIS5EC007A	TRANSFORMER	1	
T7305		EIS5EC005A	TRANSFORMER	1	
			THERMISTOR		
TH3301		ERTD2FIK154S	THERMISTOR	1	
			RESISTORS		
VR301		EVNDRAA00B13	V.RESISTOR 1K	1	
VR302		EVND1AA00B13	V.RESISTOR 1K	1	
VR303		EVN32CA00B52	V.RESISTOR 500	1	
VR701,02		EVN4LCA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR801		EVND1AA00B14	V.RESISTOR 10K	1	
VR2001		EVNDRAA00B54	V.RESISTOR 50K	1	
VR2006		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2009,10		EVND4AA00B25	V.RESISTOR 200K	2	
VR2011		EVNDRAA00B15	V.RESISTOR 100K	1	
VR2013		EVNDRAA00B23	V.RESISTOR 2K	1	
VR2018,19		EVNDRAA00B15	V.RESISTOR 100K	2	
VR3001		EVNDRAA00B23	V.RESISTOR 2K	1	
VR3301		EVN4YCA00B13	V.RESISTOR 1K	1	
VR3302		EVNDRAA00B24	V.RESISTOR 20K	1	
VR4001		EVNDRAA00B14	V.RESISTOR 10K	1	
VR4002		EVNDRAA00B25	V.RESISTOR 200K	1	
VR4004		EVNDRAA00B53	V.RESISTOR 5K	1	
VR4501		EVMFNGA00B14	V.RESISTOR 10K	1	
VR4502		EVMF8GA00B24	V.RESISTOR 20K	1	
VR4503		EVNDRAA00B23	V.RESISTOR 2K	1	
VR4507		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4509		EVMFNGA00BS3	V.RESISTOR	1	
VR4510		EVN4LCA00B25	V.RESISTOR 200K	1	
VR5001		EVNDRAA00B14	V.RESISTOR 10K	1	
VR5002		EVND1AA00B54	V.RESISTOR 50K	1	
VR5003		EVND4AA00B24	V.RESISTOR 20K	1	
VR5004,05		EVN49CA00B52	V.RESISTOR 500	2	
VR7301		EVN38CA00B14	V.RESISTOR 10K	1	
VR7326		EVN38CA00B52	V.RESISTOR 500	1	
VR7328		EVN38CA00B52	V.RESISTOR 500	1	
VR7340		EVNE4AA00B14	V.RESISTOR 10K	1	
VR7342		EVNE4AA00B53	V.RESISTOR 5K	1	
VR7344		EVNE4AA00B14	V.RESISTOR 10K	1	
VR8301		EVN4YCA00B52	V.RESISTOR 500	1	
VR8302		EVNDRAA00B13	V.RESISTOR 1K	1	
			CRYSTAL OSCELLATORS		
X710		EFCH38MSP2	CRYSTAL OSCILLATOR	1	
X711		VLF0638	CRYSTAL OSCILLATOR	1	
X715		ELB5A043	FILTER	1	
X716		EFCA31R90M1	CRYSTAL OSCILLATOR	1	
X717		EFCA40R40M1	FILTER	1	
X801		VSX0406	CRYSTAL OSCILLATOR	1	
X2201		VSX0225	CRYSTAL OSCILLATOR	1	
X3301		VSX0316	CRYSTAL OSCILLATOR	1	
X3303		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSX0306	CRYSTAL OSCILLATOR	1	
X6002		VSQ0565	CRYSTAL OSCILLATOR	1	
X7301,02		EFCS5R5MS5B	CRYSTAL OSCILLATOR	2	
X7303,04		EFCS5R74MS5B	CRYSTAL OSCILLATOR	2	
X7305		ELB5A016	FILTER	1	
X7851		EF0A4R0M03C2	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC1068	HEAT SINK	1	FOR Q1001
		VSC1323	HEAT SINK	1	FOR Q6011

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		ENC17974	RF CONVERTER	1	<!>
		VJH0510	JACK PLATE	1	FOR RF CONVERTER
		VJF0442	CLAMPER	1	
		VWJ0392	FLEXIBLE WIRE (18PIN)	1	(P2202-P1505)
		VMZ1352	HEAT SINK COVER	1	(FOR SERVO PACK)
		VJF0368	C.B.A. SUPPORTER	2	(FOR SERVO PACK)
		VJF0368	C.B.A. SUPPORTER	2	(FOR Y/C PACK)
		VSC2908	SHIELD (TOP)	1	(FOR HQ PACK)
		VSC2909	SHIELD (MAIN)	1	(FOR HQ PACK)
		VSC2910	SHIELD (BOTTOM)	1	(FOR HQ PACK)
		VJF0368	C.B.A. SUPPORTER	2	(FOR HQ PACK)
		VMZ1526	INSULATION SHEET	1	(FOR HQ PACK)
		VJR0164	PACK PIN (10P)	4	(FOR I/O PACK)
		VEJ1071	I/O JACK PLATE	1	(FOR I/O PACK)
		VGU2707	SWITCH KNOB	2	(FOR I/O PACK)
		ENV57850H6	TUNER	1	<!>(FOR DECODER PACK)
		VSC2713	SHIELD (MAIN)	1	(FOR DECODER PACK)
		VSC2712	SHIELD (TOP)	1	(FOR DECODER PACK)
		VSC2714	SHELD (BOTTOM)	1	(FOR DECODER PACK)
	■	VEP03821A	SUB LUMINANCE & CHROMINANCE		(NLA)
			C.B.A.		
			CAPACITORS		
C3501		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C3502		ECEA1CKS470	E.CAPACITOR 16V 47U	1	
C3503		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3504		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3505		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3506		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3507		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3508		ECEA1HKSR22	E.CAPACITOR 50V 0.22U	1	
C3509,10		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	2	
C3511		ECEA0JSN470	E.CAPACITOR 6.3V 47U	1	
C3512		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3514		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3515		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C3516		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C3517,18		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C3519		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3520,21		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3551,52		ECEA1CKN100	E.CAPACITOR 16V 10U	2	
C3553		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3554		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3555		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3556,57		ECEA1AK470	E.CAPACITOR 10V 47U	2	
C3558		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3559		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3560		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3561		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3562		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C3563,64		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C3567		ECEA1CK100	E.CAPACITOR 16V 10U	1	
			FILTERS		
FL3501,02		VLF0523	FILTER	2	
FL3503,04		VLF0526	FILTER	2	
FL3505		ELB4H054	FILTER	1	
FL3551		VLF0765	FILTER	1	
FL3552		VLF0766	FILTER	1	
			INTEGRATED CIRCUITS		
IC3504		CXL1009P	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3505		AN78L09	IC	1	
IC3551		M52055FP	IC	1	
IC3552		M52055FP	IC	1	
			COILS		
L3501-03		VLQEL05F101K	COIL 100UH	3	
L3510		VLP0053	COIL	1	
L3551,52		ELESP101KA	COIL 100UH	2	
			CONNECTORS		
P3502		VJP1234T	CONNECTOR(MALE) 7P	1	
P3503		VJP1235T	CONNECTOR(MALE) 8P	1	
P3504		VJP2776	CONNECTOR(MALE)	1	
P3505		VJP2775	CONNECTOR(MALE)	1	
P3506		VJS2776	CONNECTOR(FEMALE)	1	
P3507		VJS2775	CONNECTOR(FEMALE)	1	
P3508		VJP1234T	CONNECTOR(MALE) 7P	1	
P3509		VJP1231T	CONNECTOR(MALE) 4P	1	
			TRANSISTORS		
Q3506		2SC2295	TRANSISTOR	1	
Q3507		2SB709	TRANSISTOR CHIP	1	
Q3508		2SC2295	TRANSISTOR	1	
Q3551		MSB709	TRANSISTOR	1	
Q3552		MSC2295	TRANSISTOR	1	(B,C)
Q3553		MSD601	TRANSISTOR	1	
Q3555		MSB709	TRANSISTOR	1	
Q3556		MSC2295	TRANSISTOR	1	(B,C)
Q3557		2SB709	TRANSISTOR	1	
Q3558		2SD601	TRANSISTOR	1	
			RESISTORS		
R3501		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R3502		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R3503		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3504		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3505		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R3506		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3507		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R3508,09		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R3510		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3517		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3535		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3551		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R3552		ERJ6GEYJ823	M.RESISTOR CH 1/10W 82K	1	
R3553		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3554		ERJ6GMYJ112	M.RESISTOR CH 1/10W 1.1K	1	
R3555		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3556,57		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3558		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3559,60		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3561		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3562,63		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R3565-67		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	3	
R3568		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3570		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R3571		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3572		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R3573,74		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	2	
			RESISTORS		
VR3551		EVN4YCA00B53	V.RESISTOR 5K	1	
			CRYSTAL OSCILLATOR		
X3502		VSX0323	CRYSTAL OSCILLATOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VSC2911	SHIELD (TOP)	2	(1H DELAY CCD PACK)
		VSC2912	SHIELD (MAIN)	1	(1H DELAY CCD PACK)
	■	VEP05149C	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C502,03		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C504		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C505		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C507,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C509		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C511		ECUM1E473ZFN	C.CAPACITOR CH 25V 0.047U	1	
C513		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C514		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C515		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C516		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C517		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C518		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C519,20		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C523		ECUM1H040CCN	C.CAPACITOR CH 50V 4P	1	
C524,25		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C526		ECUM1H050DCN	C.CAPACITOR CH 50V 5P	1	
C527		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C530		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C531		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C532		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C533		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C534		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C535		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C536		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C537		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C551		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C552		ECEA1CKE101	C.CAPACITOR 16V 100U	1	
C553		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C555-59		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	5	
C560		ECEA0JPK470	E.CAPACITOR 6.3V 47U	1	
C561		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C562,63		ECUM1H471KBN	C.CAPACITOR CH 50V 470P	2	
C564,65		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C566		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C567		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C569		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
			DIODE		
D501,02		MA165	DIODE	2	
			INTEGRATED CIRCUITS		
IC501		AN3334K	IC	1	
IC502		VCR0271	IC	1	
IC551		BA7740FS	IC	1	
			COILS		
L502		VLQ0188K330	COIL 33UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQ0188K330	COIL 33UH	1	
L506		VLQ0188K6R8	COIL 6.8UH	1	
L551,52		VLQEL05F101K	COIL 100UH	2	
L553,54		VLQ0213K2R2	COIL 2.2UH	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P501		VJP1250T	CONNECTOR	1	
P502		VJS2603	CONNECTOR(FEMALE)	1	
P551		VJP1236T	CONNECTOR(MALE) 9P	1	
			TRANSISTOR		
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R502		ERJ6GMYJ474	M.RESISTOR CH 1/10W 470K	1	
R503		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R507		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R508		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R510		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R511		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R512		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R513		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R514		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R515,16		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	2	
R517,18		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	2	
R519		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R520		ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R521		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R522		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R523		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R551,52		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	2	
R554		ERJ6GMYJ333	M.RESISTOR CH 1/10W 33K	1	
R555		ERJ6GMYJ243	M.RESISTOR CH 1/10W 24K	1	
R556		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R557		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R558		ERJ6GMYJ273	M.RESISTOR CH 1/10W 27K	1	
R559		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R560		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R561,62		ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	2	
R563		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R564		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R565		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
R566,67		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	2	
R568		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
			RESISTOR		
VR501,02		EVND1AA00B23	V.RESISTOR 2K	2	
			MISCELLANEOUS		
		VSC2668	SHIELD(TOP)	1	
		VSC2669	SHIELD(BOTTOM)	1	
		VSC2670	SHIELD(MAIN)	1	
	■	VEP06731B	VR C.B.A.		(NLA)
			CAPACITORS		
C6303,04		ECQB1H103KH	P.CAPACITOR 50V 0.01U	2	
C6501,02		ECQB1H223KZ	P.CAPACITOR 50V 0.022U	2	
C6503		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C6504		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C6505		ECEA1CKS330	E.CAPACITOR 16V 33U	1	
C6507		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6508,09		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	2	
C6510		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			LED		
D6501		LN21RCPHL	LED	1	
			INTEGRATED CIRCUIT		
IC6501		VCR0172	IC	1	
			CONNECTORS		
J6301		VJJ0238	CONNECTOR	1	
J6302		VJJ0210	MIC JACK	1	
			COILS		
L6301,02		VLQ0188J221	COIL 220UH	2	
L6501,02		VLQEL05F471K	COIL 470UH	2	
			CONNECTORS		
P6501		VJP1249T	CONNECTOR(MALE) 9P	1	
P6502		VJS2357A015	CONNECTOR(FEMALE)	1	
P6503		VJP1394T	CONNECTOR(MALE)	1	
P6504		VJP1243T	CONNECTOR(MALE) 3P	1	
			RESISTORS		
R6501		EROS2CKG4701	M.RESISTOR 1/4W 4.7K	1	
R6502		EROS2CKG5600	M.RESISTOR 1/4W 560	1	
R6503		EROS2CKG4701	M.RESISTOR 1/4W 4.7K	1	
R6504		EROS2CKG5600	M.RESISTOR 1/4W 560	1	
R6505		EROS2CKG2701	M.RESISTOR 1/4W 2.7K	1	
R6506		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6507		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			SWITCH		
SW6501		EVQQS307K	SWITCH	1	
			RESISTORS		
VR3004		EWAKFKXB3B24	V.RESISTOR 20K	1	
VR6501		EWAKABXB3C23	V.RESISTOR 2K	1	
VR6503		EWANYHX05J54	V.RESISTOR 50K	1	
			MISCELLANEOUS		
		KL04	LED SPACER	1	
		VYC0160	REC VR PANEL UNIT	1	
		VGU4495	REC VR KNOB	2	
		VJF0824	JACK HOLDER	1	
	■	VEP07622C	TIMER C.B.A.		(NLA)
			CAPACITORS		
C6701		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H471KB	C.CAPACITOR 50V 470U	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMMER 3P	1	
C7502		ECUM1H080DCN	C.CAPACITOR CH 50V 80P	1	
C7503,04		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	2	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7508		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7509,10		ECEA0JK470	E.CAPACITOR 6.3V 47U	2	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C7520		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7521		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7522		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C7523,24		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C7525		ECUM1H821KBN	C.CAPACITOR CH 50V 820P	1	
C7527		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7529		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C7531		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C7532		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
			DIODES		
D6701		PN323B	PHOTO DIODE	1	
D7501		MA3068	DIODE	1	
D7504		MA73	DIODE	1	
D7507		MA73	DIODE	1	
D7510,11		MA73	DIODE	2	
D7513		MA73	DIODE	1	
D7516-18		MA73	DIODE	3	
D7530		MA73	DIODE	1	
D7532-41		MA73	DIODE	10	
D7550,51		LN28RCPLV	DIODE	2	
D7553		LN28RCPLV	DIODE	1	
D7554		VLL0062	DIODE	1	
D7555		LN28RCPLV	DIODE	1	
D7556		LN38GCPLV	DIODE	1	
D7557		LN28RCPLV	DIODE	1	
D7560		MA73	DIODE	1	
			DISPLAY TUBE		
DP7501		VSL0144	DISPLAY TUBE	1	
			ICS		
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12C261D	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280S	IC	1	
IC7505		BA6810S	IC	1	
			COIL		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJS2651B013Z	CONNECTOR	1	
P7502,03		VJS2651B011Z	CONNECTOR	2	
P7505		VJS2357A020	CONNECTOR(FEMALE)	1	
P7506		VJS2651B008Z	CONNECTOR	1	
P7507		VJP2621	CONNECTOR(MALE)	1	
			COMBINATIONS		
QR7501		MRN1404	TRANSISTOR-RESISTOR	1	
QR7505		MRN2402	TRANSISTOR-RESISTOR	1	
QR7510,11		MRN2403	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7501		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R7502		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R7503		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7504		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R7505		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7506		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R7507		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R7508-10		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R7511,12		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R7523-32		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	10	
R7533		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7534		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7538		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R7540		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R7541		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7542-44		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	3	
R7546		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7547		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R7548		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R7549		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R7550-56		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	7	
R7557		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R7558,59		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	2	
R7570		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R7571		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R7572		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R7573		ERJ6GEYJ390	M.RESISTOR CH 1/10W 39	1	
R7578		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R7579		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
			COMBINATION PARTS		
RX7501		EXBF11E104J	COMBI.R-R	1	
RX7502		EXBF8E104J	COMBI.R-R	1	
			CRYSTAL OSCILLATORS		
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0693	FIP HOLDER	1	
		VMD1342	LED SPACER	1	
		VSC2671	SHIELD(MAIN)	1	(FOR IR RECEIVER)
		VSC2672	SHIELD(BOTTOM)	1	(FOR IR RECEIVER)
	■	VEP06537A	JOG SHUTTLE C.B.A.		(NLA)
			LED		
D6701-03		LN38GCPP	LED	3	
			CONNECTOR		
P6701		VJS2621	CONNECTOR(FEMALE)	1	
			COMBINATION PARTS		
QR6701		UN1112	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6702		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6703		EROS2CKG1802	M.RESISTOR 1/4W 18K	1	
R6704-06		EROS2CKG1801	M.RESISTOR 1/4W 1.8K	3	
R6707		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6708		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R6709		EROS2CKG9102	M.RESISTOR 1/4W 91K	1	
R6710		EROS2CKG1202	M.RESISTOR 1/4W 12K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6711		EROS2CKG6802	M.RESISTOR 1/4W 68K	1	
R6712		EROS2CKG3302	M.RESISTOR 1/4W 33K	1	
R6713		EROS2CKG5102	M.RESISTOR 1/4W 51K	1	
R6714		EROS2CKG1203	M.RESISTOR 1/4W 120K	1	
			SWITCHES		
SW6701		EVQQS307K	SWITCH	1	
			MISCELLANEOUS		
		VSQ0651	JOG/SHUTTLE ENCODER	1	
		VMX1652	LED SPACER	3	
	■	VEP01353N	POWER C.B.A.		<!>(NLA)
			CAPACITORS		
C1101		ECQU2A224MN	P.CAPACITOR 100V 0.22U	1	
C1102		ECQU2A154MN	P.CAPACITOR 100V 0.15U	1	
C1108		ECOS2GA820A	E.CAPACITOR 400V 82U	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473JZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KB	C.CAPACITOR 2KV 330P	1	
C1112		ECQB1H682JZ	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C1114		ECA1CXLV470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C1117		ECQP1101JZ	P.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECA1CFZ681	E.CAPACITOR 16V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECA1AFZ681	E.CAPACITOR 10V 680U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	
C1142		VCC0021	C.CAPACITOR	1	
C1145		VCC0021	C.CAPACITOR	1	
C1147		VCC0022	C.CAPACITOR 1000P	1	
			DIODES		
D1102		S1WBA60	DIODE	1	
D1103		VSD0002	DIODE	1	
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		FMLG12SP	DIODE	1	
D1110		MA185	DIODE	1	
D1111		FMBG14L	DIODE	1	
D1112		ERB83-004	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	
			INTEGRATED CIRCUITS		
IC1101		STRD6008X	IC	1	
IC1102		STK5391	IC	1	
IC1103		SE013E	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COILS		
L1101,02		ELF18D221F	COIL	2	
L1103		ELC07B009	COIL	1	
			FILTER		
L1104-07		VLP0085	FILTER	4	
			CONNECTORS		
P1101		VJS2651B014Z	CONNECTOR	1	
P1102		VJS2625	CONNECTOR(FEMALE)	1	
			TRANSISTORS		
Q1101		PC111	PHOTO COUPLER	1	
Q1102		2SD1996	TRANSISTOR	1	
			RESISTORS		
R1101		ERC12AGM334	S.RESISTOR 1/2W 330K	1	
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1108		ERD2FTVG681	C.RESISTOR 1/4W 680	1	
R1109		ERDS2TJ221	C.RESISTOR 1/4W 22	1	
R1110		ERG2SJ330	M.RESISTOR 2W 33	1	
R1111		ERG3SJ270	M.RESISTOR 3W 27	1	
R1113		ERG1SJ182	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	W.RESISTOR 1W 2.2	1	
			TRANSFORMER		
T1101		VLT0569	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	4	
		VMZ1183	CAPACITOR COVER (A)	1	
		VMZ1184	CAPACITOR COVER (B)	1	
	■	VEX0117	CYLINDER DRIVE C.B.A.		(NLA)
			CAPACITORS		
C2901-03		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	3	
C2904-06		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	3	
C2907		ECUM1E683KBM	C.CAPACITOR CH 25V 0.068U	1	
C2908		ECUM1E473KBM	C.CAPACITOR CH 25V 0.047U	1	
C2909		ECQV1H104JS	P.CAPACITOR 50V 0.1U	1	
C2910,11		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
			INTEGRATED CIRCUIT		
IC2901		AN3815K	IC	1	
			CONNECTORS		
P2901		VJP2603W	CONNECTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P2902		VJP1232T	CONNECTOR(MALE) 5P	1	
			RESISTORS		
R2901		ERX12SJR47	M.RESISTOR 1/2W 0.47	1	
			THERMISTOR		
TH2901		VRH0017	THERMISTOR	1	
	■	VEP00K88C	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JZ	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KZ	P.CAPACITOR 50V 0.033U	1	
			COMBINATION PART		
CR1401		EXED103Z333C	CAPACITOR-RESISTOR	1	
			COIL		
L1401		VLQ0188J101	COIL 100UH	1	
			CONNECTOR		
P1502		VJP1148	CONNECTOR 2P	1	
			TRANSISTOR		
Q1401		2SD636	TRANSISTOR	1	
			TRANSFORMER		
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VEP00M86A	FG AMP C.B.A.		(NLA)
			CAPACITORS		
C1510		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C1511		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
C1512		ECEA1CK470	E.CAPACITOR 16V 47U	1	
C1513		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C1514		ECUM1H104ZFM	C.CAPACITOR CH 50V 0.1U	1	
			INTEGRATED CIRCUIT		
IC1501		UPC358G	IC	1	
			FILTER		
L1510,11		VLP0083	FILTER	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P1505		VJS1456	CONNECTOR(FEMALE)	1	
P1506		VJS1685	CONNECTOR(FEMALE)	1	
			RESISTORS		
R1510		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1511		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R1512		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R1513-16		ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	4	
R1517		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R1518		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R1519		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
	■	VXA3825	MECHANISM CONNECTION C.B.A.		(NLA)
			INTEGRATED CIRCUITS		
IC1501,02		ON2170	PHOTO COUPLER	2	
			CONNECTOR		
P1504		VJS1493	CONNECTOR 15P	1	
			MISCELLANEOUS		
		VMA7829	REINFORCEMENT PLATE (F)	1	
		VMA7830	REINFORCEMENT PLATE (R)	1	
		VMZ1366	PROTECTION SHEET	1	
	■	VEK3578	PHOTO Tr.(S) C.B.A.		(NLA)
			CAPACITOR		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NVS	TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO Tr. HOLDER	1	
	■	---------	PHOTO Tr.(T) C.B.A.		
			CAPACITOR		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
			CONNECTOR		
P1503		VJS2165W	CONNECTOR 6P	1	
			TRANSISTOR		
Q1502		PN150NVS	TRANSISTOR	1	
			RESISTOR		
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
		VMD0645	PHOTO Tr. HOLDER	1	
	■	VEP66151B	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C6801		ECEA0JKS101	E.CAPACITOR 6.3V 100U	1	
C6802,03		ECUM1H221JN	C.CAPACITOR CH 50V 220P	2	
C6804		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C6805		ECEA1HKSR22	E.CAPACITOR 50V 22U	1	
C6806		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
			DIODES		
D6801		SE303ACYTF	DIODE	1	
D6802		LN25RCP	DIODE	1	
D6804-12		MA221	DIODE	9	
			INTEGRATED CIRCUIT		
IC6801		M34200V1AF	IC	1	
			CONNECTOR		
P6801		VJS2849	CONNECTOR	1	
			TRANSISTORS		
Q6801		MSB709-R	TRANSISTOR	1	
Q6802-05		MSD601-R	TRANSISTOR	4	
Q6806		MSB709-R	TRANSISTOR	1	
Q6807,08		MSD601-R	TRANSISTOR	2	
			COMBINATIONS		
QR6801		UN7231	TRANSISTOR-RESISTOR	1	
QR6802		MRN1404	TRANSISTOR-RESISTOR	1	
QR6804		MRN1407	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6801		ERJ8GCYJ8R2	M.RESISTOR CH 1/8W 8.2K	1	
R6802		ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R6804		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6806,07		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	2	
R6808		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6809		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6810		ERJ6GMYJ184	M.RESISTOR CH 1/10W 180K	1	
R6811		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6812		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6813		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R6814		ERJ6GMYJ184	M.RESISTOR CH 1/10W 180K	1	
R6815		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6816		ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6817-22		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	6	
R6824		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6825		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R6826		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6827		ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6828		ERJ6GMYJ104	M.RESISTOR CH 1/10W 100K	1	
R6831		ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6835		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6836		ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6837		ERJ8GCYJ8R2	M.RESISTOR CH 1/8W 8.2K	1	
			SWITCH		
SW6801		VSS0126	SWITCH	1	
			CRYSTAL OSCILLATOR		
X6801		EF0A440KT4A1	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0576	ELECTRODE (+)	1	
		VJR0577	ELECTRODE (-)	1	
	■	VEP66077C	DIGITAL SCANNER C.B.A.		(NLA)
			CAPACITORS		
C02		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C03-05		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	3	
C06		ECEV1CA470	E.CAPACITOR 16V 47U	1	
C07,08		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C09		ECUM1E104ZFM	C.CAPACITOR CH 25V 0.1U	1	
C10-12		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C13		ECEV1HA010	E.CAPACITOR 50V 1U	1	
			DIODES		
D04		MA151A	DIODE	1	
D06		SE303ACY	DIODE	1	
			INTEGRATED CIRCUITS		
IC01		MN158453VFL	IC	1	
IC02		AN8355S	IC	1	
			COIL		
L01		ELT3K017B	COIL	1	
			LCD		
LCD01		VSL0177	LCD	1	
			TRANSISTORS		
Q02		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q03		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q04		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
			COMBINATIONS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR02		FN1L4M	TRANSISTOR-RESISTOR	1	
QR04		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R01		ERJ6GMYJ120	M.RESISTOR CH 1/10W 12	1	
R02		ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R03		ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	
R04		ERJ6GMYJ153	M.RESISTOR CH 1/10W 15K	1	
R05		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R06		ERJ6GMYJ334	M.RESISTOR CH 1/10W 330K	1	
R07		ERJ6GMYJ563	M.RESISTOR CH 1/10W 56K	1	
R08		ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R09		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R13		ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R16,17		ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	2	
R18		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	
R19		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R21		ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R29		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
			SENSOR		
SN01		VSQ0567	SENSOR	1	
			SWITCHES		
SW01		VSS0126	SWITCH	1	
SW02		EVQQFV02K	SWITCH	1	
			RESISTOR		
VR09		EVNDXAA00B34	V.RESISTOR 30K	1	
			CRYSTAL OSCILLATORS		
X01		VSX0245	CRYSTAL OSCILLATOR	1	
X02		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMX1324	LCD SPACER	1	